ST/ESCAP/2
UNITED NATIONS

ECONOMIC and SOCIAL SURVEY of ASIA and the PACIFIC 1975

UICC LIBRARY
MAR 3 1977
DOCUMENTS

United Nations

UNITED NATIONS

ECONOMIC AND SOCIAL SURVEY
OF
ASIA AND THE PACIFIC,
1975

Also issued as Vol. XXVI, No. 4 of the
ECONOMIC BULLETIN FOR ASIA
AND THE PACIFIC, 1975

Bangkok
1976

UNITED NATIONS

ECONOMIC BULLETIN FOR ASIA AND THE PACIFIC

Beginning with the ninth volume (1958/59), the *Economic Bulletin for Asia and the Pacific* has been issued quarterly, in March, June, September and December. The March issue is the annual *Economic and Social Survey of Asia and the Pacific,* the June and September issues contain articles and notes on subjects related to the economies of Asia and the Pacific, and the December issue features special studies and reports relating to economic development and planning.

The *Bulletin* is prepared by the secretariat of the Economic and Social Commission for Asia and the Pacific and is published entirely on the responsibility of that secretariat. The designations employed in this publication do not imply the expression of any opinion whatsoever on the part of the secretariat of the United Nations concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of its frontiers.

Since the 1957 issue, the *Economic and Social Survey of Asia and the Pacific* has, in addition to a review of the current situation of the region, contained a study or studies of some major aspect(s) or problem(s) of economies of Asia and the Pacific, as specified below:

1957: Postwar problems of economic development
1958: Review of postwar industrialization
1959: Foreign trade of ECAFE primary exporting countries
1960: Public finance in the postwar period
1961: Economic growth of ECAFE countries
1962: Asia's trade with western Europe
1963: Import substitution and export diversification
1964: Economic development and the role of the agricultural sector
1965: Economic development and human resources
1966: Aspects of the finance of development
1967: Policies and planning for export
1968: Economic problems of export-dependent countries. Implications of economic control and liberalization
1969: Strategies for agricultural development. Intra-regional trade as a growth strategy
1970: The role of foreign private investment in economic development and co-operation in the ECAFE region. Problems and prospects of the ECAFE region in the Second Development Decade
1971: Economic growth and social justice. Economic growth and employment. Economic growth and income distribution
1972: First biennial review of social and economic developments in ECAFE developing countries during the Second United Nations Development Decade
1973: Education and employment
1974: Mid-term review and appraisal of the International Development Strategy for the Second United Nations Development Decade in the ESCAP region, 1974
1975: Rural development, the small farmer and institutional reform

---

UNITED NATIONS
ECONOMIC AND SOCIAL SURVEY OF ASIA AND THE PACIFIC
1975

ST/ESCAP/2

UNITED NATIONS PUBLICATION

Sales Number: E.76.II.F.1

Price: $US 10.00 or equivalent in other currencies

PREFACE

The present *Survey* is the twenty-ninth in a series of reports prepared annually by the Economic and Social Commission for Asia and the Pacific (ESCAP). A major object of these *Surveys* is the analysis of recent economic and social developments in the region and of international developments that affect them. Particular attention is paid to economic and social policy issues and broad development strategies.

In recent years, in addition to the review and analysis of economic and social developments, it has been the practice for the *Surveys* to examine specific problems concerning the economies of the region in order to study long-term trends and their implications for national policies.

Part One of the present *Survey* contains a review of the current economic and social situation in the region. Part Two is devoted to an in-depth study of rural development, particularly in relation to the small farmer and institutional reform. Many countries of the region are placing increasing emphasis on programmes for rural development and the *Survey* examines the role of the small family farm in rural and general economic development in the ESCAP region and makes suggestions for a small farmer development strategy.

This *Survey* is published on the sole responsibility of the ESCAP secretariat. Although its contents have benefited from the comments of both experts and official representatives from member countries, the views expressed herein are not necessarily those of the Commission or the Governments of its member countries.

Bangkok, March 1976

EXPLANATORY NOTE

The term "ESCAP region" is used in the present issue of the *Survey* to include Afghanistan, Australia, Bangladesh, Bhutan, the British Solomon Islands, Brunei, Burma, Cambodia, China, the Cook Islands, Fiji, the Gilbert and Ellice Islands, Hong Kong, India, Indonesia, Iran, Japan, Laos, Malaysia, Mongolia, Nauru, Nepal, New Zealand, Pakistan, Papua New Guinea, the Philippines, the Republic of Korea, the Republic of South Viet-Nam, Singapore, Sri Lanka, Thailand, Tonga, the Trust Territory of the Pacific Islands and Western Samoa. The term "developing ESCAP region" excludes Australia, Japan and New Zealand.

Reference to "tons" indicates metric tons, and to "dollars", United States dollars, unless otherwise stated.

The term "billion" signifies a thousand million.

Three dots (. . .) indicate that data are not available or are not separately reported.

A dash (—) indicates that the amount is nil or negligible.

A blank in a table indicates that the item is not applicable.

A hyphen (-) between dates representing years, e.g. 1960-1970, is used to signify the full period involved, including the beginning and end years.

A stroke (/) indicates a crop year, fiscal year or plan year, e.g. 1972/73.

The plan years of the ESCAP countries coincide with their fiscal years as given in the table below.

In respect of information given, the countries listed below have generally been included, subject to limitation of data.

Country	*Fiscal year*	*Currency and abbreviation*	*Official rate of exchange for one United States dollar as of March 1976 except as otherwise indicated*
Afghanistan	21 March to 20 March	Afghani (Af)	45.00
Australia	July to June	Australian dollar ($A)	0.80
Bangladesh	July to June	Taka	15.65
Bhutan	April to March	Rupee (Rs)	8.15[a]
British Solomon Islands	January to December	Australian dollar ($A)	0.80
Brunei	January to December	Brunei dollar ($Br)	2.50[b]
Burma	October to September	Kyat (K)	6.69[c]
Cambodia	January to December	Riel (KR)	1,650.00[d]
China	January to December	Yuan (¥)	1.97
Cook Islands	April to March	New Zealand dollar ($NZ)	0.95
Fiji	January to December	Fijian dollar ($F)	0.86[c]
Hong Kong	April to March	Hong Kong dollar ($HK)	4.96[e]
India	April to March	Rupee (Rs)	8.97[f]
Indonesia	January to December	Rupiah (Rp)	415.00
Iran	21 March to 20 March	Rial (Rls)	69.82
Japan	April to March	Yen (Y)	29.97
Laos	July to June	Kip (K)	750.00[f]
Malaysia	January to December	Malaysian dollar ($M)	2.55
Mongolia	January to December	Tugrik	3.38
Nauru	July to June	Australian dollar ($A)	0.80
Nepal	16 July to 15 July	Rupee (NRs)	12.50[e]
New Zealand	April to March	New Zealand dollar ($NZ)	0.95
Pakistan	July to June	Rupee (PRs)	9.93
Papua New Guinea	July to June	Australian dollar ($A)	0.74
Philippines	July to June	Peso (P)	7.45
Republic of Korea	January to December	Won (W)	484.00
Republic of South Viet-Nam	January to December	Piastre ($VN)	755.00[f]
Singapore	April to March	Singapore dollar ($S)	2.48
Sri Lanka	October to September	Rupee (SRs)	7.71[e]
Thailand	October to September	Baht (B)	20.40[e]
Tonga	July to June	Tongan dollar ($T)	0.67[b]
Western Samoa	January to December	Tala ($WS)	0.78

Sources: International Financial Statistics, *Monthly Bulletin*, May 1976; United Nations *Monthly Bulletin of Statistics*, May 1976; International Financial Statistics, *Direction of Trade Annual*, 1969-1973.

Note:
[a] December 1974.
[b] December 1973.
[c] February 1976.
[d] February 1975.
[e] December 1975.
[f] April 1975.

ECONOMIC AND SOCIAL SURVEY OF ASIA AND THE PACIFIC, 1975

TABLE OF CONTENTS

Page

Summary and Conclusions

I. Recent Developments and Emerging Policy Issues in the ESCAP Region, 1974/75 1

II. Rural Development, the Small Farmer and Institutional Reform 3

Part One

RECENT DEVELOPMENTS AND EMERGING POLICY ISSUES IN THE ESCAP REGION 1974/75

Chapter

1. The International Situation 15
2. Developments in ESCAP Countries, 1974/75 20

Part Two

RURAL DEVELOPMENT, THE SMALL FARMER AND INSTITUTIONAL REFORM

Chapter

1. Introduction 47
2. The Small Farmer 52
3. Technology and the Small Farmer 61
4. Marketing 96
5. The Mobilization of Financial Resources 123
6. Land Reform 140
7. Institutional Reform 147

LIST OF TABLES

Page

Part One

1. Growth of world output, 1960-1974 16
2. Price increases in less developed countries, 1965 to fourth quarter 1974 16
3. World trade summary, 1960-1974 17
4. Selected developing countries in the ESCAP region: Growth rates of gross product at constant prices 1960-1975 21
5. Main economic indicators: ESCAP developed economies 22
6. Production of principal crops in the ESCAP region, 1971-1975 23
7. Selected ESCAP developing countries: Manufacturing industry growth rates 27
8. Shares of major sectors in GDP: 1965, 1970 and 1974 28
9. Gross investment and domestic savings, 1970 and 1974, including weighted averages for eight developing countries 29
10. Gross domestic savings 29
11. Gross investments as percentage of GDP 30
12. External resource flows and service payments on external public debt, by region, 1967-1973 31
13. Average terms of loan commitments and grant element of loans and grants, by region, 1967-1973 32
14. Total recorded net flow of resources to selected ESCAP developing countries from DAC countries and multilateral agencies, 1970-1974 33
15. Merchandise exports f.o.b., 1971-1975 34
16. Merchandise imports c.i.f., 1971-1975 34
17. Imports of selected commodities by selected developing countries in the ESCAP region: 1973-1974 36
18. Export prices of selected primary commodities, 1971-1975 37
19. Terms of trade, 1965-1975 38
20. Balance of payments summaries in selected developing countries of the ESCAP region 40
21. Changes in foreign exchange rates, 1965-1975 43
22. Changes in consumer prices, 1970-1975 44
23. Changes in money supply, 1970-1975 45

Part Two

1. Asia: Number and area of holdings 57
2. Significance of the small farm subsector in selected Asian countries 57
3. India: Distribution of operational holdings and of area 59
4. Estimated area planted to high-yielding varieties of rice and wheat 62
5. Yields of rice varieties planted in San Bartolome, Tarloc, Philippines, 1965, 1967 and 1969 wet seasons 63
6. Comparison of area planted, yield, consumption and percentage of sale of tongil between size of holding and between programme areas, 1974 65
7. Recommendations for expansion of HYV made by farmers, 1974 66
8. Proportion of farm area committed to four HYV grains by small and large farmers in India 66
9. Yield of HYV rice according to land holding size in the IADP districts for the period 1966/67-1970/71 67
10. Profit derived from each rupee invested in fertilizer use on various crops in several Indian States 69
11. Consumption of fertilizers by size of holdings in West Godavari District, India 70
12. Efficiency of fertilizer utilization by small farmers residing in low-production rice-farming villages in West Malaysia 71
13. Aspects of irrigation systems in selected ESCAP countries 74
14. Percentage share of total land holdings and total (net) irrigated area by land size (All-India) 75
15. Percentage distribution of source-wise irrigated area under five categories of holdings, 1970/71 (All-India) 75
16. Farm characteristics and problems of ownership and maintenance of hand tractors mentioned by 140 owners, by type of tractor, Laguna, Philippines 1969 80
17. Dwarf wheat and chemical fertilizer used for the first time by respondents each year: Hazara District Survey, 1970 83
18. Production and utilization of wheat and gram by size of holding, Ludhiana District, Punjab, 1962-1963 99
19. Farm-to-market roads per square mile of cultivated land 101
20. Type of storage at village level in the Punjab 103
21. Seasonal variation in farm prices for major crops 104
22. Share of various agencies in warehouse stocks in Punjab, 1967 to 1970 104
23. Percentages of marketed surplus sold in markets and villages in the Punjab 108
24. Percentage of quantities sold in the village to different types of buyers 108
25. Components of the cost of marketing 111
26. Components of the cost of marketing of rice in Krawang, West Java 112
27. The average inputs and yields per acre for dwarf and native variaties of wheat in Hazara district, Pakistan, 1969/70 124
28. Sources of finance for capital expenditure (in cash) in agriculture reported by small farms, selected districts, India 125
29. The percentage distribution of loans/debt by source of borrowing, selected countries, ESCAP region 127
30. Sources of credit, rural households classified by "economic activity", Sri Lanka, 1969 .. 127
31. The percentage distribution of sources of credit for large and small farmers in selected ESCAP countries 128
32. Interest rates (corrected for inflation) to farmers by source of credit 129
33. Distribution of commercial bank credit by economic activity 131
34. India: Borrowings from co-operative societies, 1961/62 133
35. India: Distribution of members of co-operative societies and members of committees of management in the Broach, Billary and Shahabad districts, 1967/68 134
36. Rates of default in the repayment of loans 134

SUMMARY AND CONCLUSIONS

SUMMARY AND CONCLUSIONS

I. Recent Developments and Emerging Policy Issues in the ESCAP Region, 1974/75

As far as the rates of growth in *per capita* and gross national products were concerned, the years 1974 and 1975 were generally unsatisfactory ones from the viewpoint of ESCAP countries. While 1976 may bring some relief, the situation is far below what is required or consistent with the 6.0 per cent target rate of growth in gross national product for the region as a whole set for the Second United Nations Development Decade.

Inevitably, the performance of the region was affected by developments in the world economy. The years 1974 and 1975 were characterized by negative or negligible real rates of growth in gross domestic product and by unprecedentedly high post-war levels of unemployment and inflation. As a consequence, there was a dramatic drop in the rate of increase in the volume of world trade, matched by an equally steep increase in its value as the result of general world inflation and the oil price rise and commodity price boom in particular. The net outcome of these developments was a 1.0 per cent increase in world output in real terms in 1974, a record level of inflation which in the developed countries averaged 11.7 per cent and in the developing countries 29 per cent, and a decline in the expansion of the volume of world trade from 13 per cent in 1973 to 5 per cent in 1974. Indications are that, in 1975, the output of the developed economies fell by about 2 per cent, that inflation, though moderated, persisted at a high level and that the volume of goods traded actually declined. Prospects for the world economy in 1976, while slightly better than in 1974/75, are not bright. At best, world output is expected to grow by about 4.0 per cent, which would be only 2.0 per cent better than the level of output attained in 1974, and even this modest recovery could falter in late 1976.

The combined effect of the world recession, the reduced availability of imports in real terms and stagnation in agricultural production gave rise to a most unsatisfactory set of growth rates in gross national products in ESCAP developing countries in 1974 and 1975. If the performance of Iran is excluded, the average weighted rate of growth in gross domestic product for the region as a whole fell far short of the target of 6.0 per cent rate of growth. Moreover, it was the countries with the lowest *per capita* incomes whose performance was most unsatisfactory. Real *per capita* incomes in south Asia actually declined, and expected rates of growth in gross domestic product in 1975 are 5.3 per cent for Afghanistan, 2.0 per cent for India, 2.6 per cent for Pakistan and 3.4 per cent for Sri Lanka.

It has become evident that satisfactory economic development in the region cannot be secured unless increases in agricultural output are maintained. In 1974, output of rice and wheat, the two primary food crops of the region, actually declined by 1.3 per cent and 2.4 per cent respectively. This gave rise to critical food shortages as *per capita* food supplies declined on average throughout the region. The situation was aggravated by the world shortage of food supplies, by the dramatic increase in their prices, and by the critical shortage of foreign exchange as far as ESCAP developing countries were concerned.

At this juncture, the outlook for 1975 agricultural production in the ESCAP region gives grounds for optimism. Production of all the main crops, with the single exception of jute, is expected to rise substantially. The increase in output of the three major cereals, rice, wheat and maize, is expected to be 6.3 per cent, 7.7 per cent and 3.6 per cent respectively. This solid performance in the agricultural sector will to a considerable extent mitigate the disastrous consequences of the world recession on the growth rates of many ESCAP developing countries.

Although firm data are not to hand, manufacturing output in the region, as might be expected, fell well short of the targeted 8.0 per cent per annum growth rate set for the Second United Nations Development Decade. This was partially the effect of the world recession on demand for the region's exports, and partially also the effect of the reduced availability of imports in real terms on domestic manufacturing capability. The reduced flow of imports severely affected the availability of spare parts, raw materials, semi-processed products and capital equipment.

The combined effect of world recession and inflation impaired the ability of many countries to mobilize their domestic resources for development. As a proportion of gross domestic product, the weighted average ratio of gross domestic savings to gross domestic product of eight major regional developing countries rose from 16.6 per cent in 1970 to around 18.0 per cent in the early 1970s to fall again to 16.2 per cent in 1974. Given the record to date, this makes it highly unlikely that the developing countries in the region as a whole will achieve the targeted weighted average ratio of 20.0 per cent by 1980.

Between 1970 and 1974, gross investment as a proportion of gross domestic product increased from 18.6 per cent to 19.5 per cent. The savings gap was made good by foreign capital inflow, most of which involved foreign direct investment and, more recently, by short-term borrowings. However, it is unlikely that such rates of growth in capital formation can be sustained, particularly in the countries in south Asia. Given their existing shortage of foreign exchange reserves, their limited capacity in the short to medium term to increase exports or import-competing capacity, their limited ability and desire to increase substantially foreign investment flows, and their already seriously strained debt-servicing capabilities, it is difficult to see how these countries can avoid economic stagnation during the remainder of the decade unless they secure an unprecedentedly large increase in the inflow of foreign assistance. This is probably the single most important policy issue in the region today. At this juncture the world flows of concessionary capital as a proportion of the gross national products of developed countries has almost halved since 1963 and, without firm international understanding and action, it is difficult to see a change forthcoming in this trend.

The pattern of trade in ESCAP developing countries followed that of the world. In 1974, the value of exports of ESCAP developing countries increased by over 100 per cent, the leading contributors to the increase being the two major petroleum exporters of the region, Iran and Indonesia. The developing countries of the region increased their imports in 1974 by about 55 per cent. Setting aside the balance of trade positions of Iran and Indonesia, the balance of trade deficit position of the remaining developing countries of the region worsened from $US4,115 million in 1973 to $US 4,433 million in 1974 and to a huge deficit of $US 10,059 million in 1975.

This enormous deficit was the outcome of strongly adverse terms-of-trade movements which, in 1974 and 1975, offset more than considerably the favourable terms-of-trade effects of the 1973/74 commodity price boom. The underlying causes, already mentioned above, were the increase in world food prices, the persistent rise in the prices of goods imported from the developed countries, and the spectacular rise in the price of oil. As a consequence, when compared with 1973, expenditure in 1974 by deficit developing member countries of the region on oil increased by nearly 300 per cent, on foodgrains by some 25 per cent and on fertilizers by some 80 per cent.

The other outstanding cause of the deterioration in the terms of trade of ESCAP developing countries was the abrupt decline in the prices of their primary commodity exports that took place in late 1974 and 1975. As of June 1975, the price of wheat, compared with its average 1974 price, had fallen by some 24 per cent, rice by 36 per cent, maize and sugar by 50 per cent, copra by 66 per cent and palm oil by 51 per cent.

The strong adverse shift in the terms of trade of ESCAP developing countries gave rise to the serious balance of payments problems mentioned above.

As far as monetary and fiscal policy was concerned, developing countries of the region were, until late 1974 and 1975, intent upon containing inflation which in 1974 reached record levels. For the most part, the causes of inflation were to be found in developments in the international economy and were transmitted to the developing countries via the international trading and payments system. To a lesser extent, inflation was also the result of domestic causes, including the high degree of liquidity which followed the build-up of foreign exchange reserves in 1973 and some cost-push elements.

The record of individual countries in dealing with inflation varied. In all the developing countries observed, inflation exceeded 10.0 per cent in 1974, but a considerable reduction in the rate of inflation was achieved in 1975. This reduction resulted partly from the policies followed, partly from the fall in foreign exchange reserves, and partly from the slowing down of world inflation.

Other measures adopted to deal with inflation included the fixing of prices of essential consumer and production goods, the use or increase of subsidies, drastic legal action against smugglers, the abolition or reduction of export taxes, the reduction of tariffs and in some cases the alteration of exchange rates. Governments which fixed prices quickly found black markets developing, and a number of those which resorted to increased subsidies were forced to abandon them because of the inflationary effects of the resulting deficits in government budgets.

To conclude, the situation in 1976 suggests that a moderate recovery will take place in the ESCAP developing countries considered as a whole. This will be partly due to the tentative recovery in world economic conditions and partly a consequence of a better performance in agricultural production. For the most seriously affected countries of south Asia, however, the recovery is likely to be slow unless substantial increases in foreign concessionary capital inflows are secured.

The situation in each of the three developed economies of the ESCAP region was also dominated by trends in the world economy. Japan's gross national product actually fell in 1974 and only negligible growth was secured in 1975. International trade developments caused the balance of payments to move into deficit in 1974 and, in the same year, inflation unprecedentedly exceeded 30 per cent although this was reduced to an enviable 3.1 per cent in 1975. The outlook for 1976 is for a modest growth in *per capita* output of 5.5 per cent.

Australia has been plagued by both high rates of inflation and, in 1975, a negative rate of growth in real output. In part this was a result of international developments, but primarily it resulted from unprecedentedly high levels of unemployment, a fall in investment activity and aggressive wage demands.

New Zealand likewise had a low 2.5 per cent rates of growth in national output in 1975, accompanied by inflation of around 15.0 per cent and a large balance of payments deficit. The inflation resulted partly from international conditions and partly from the exercise of lax monetary and fiscal policies and aggressive wage demands.

Over-all, the three developed economies in the ESCAP region should experience modest rates of recovery in 1976. However, their prospects will depend on the adoption of appropriate domestic policies as well as on the pace of world economic recovery.

II. Rural Development, the Small Farmer and Institutional Reform

1. *Introduction*

In the ESCAP region which contains so many heterogeneous countries generalizations are difficult. Yet it can be said that, for ESCAP developing countries as a whole, a generation of economic development has done little to improve the living conditions of a large proportion of the people who still live in poverty and that employment opportunities have fallen considerably short of increases in the work force, thus exacerbating the already high level of underemployment and unemployment.

Estimates of the broad magnitude and geographical spread of poverty in the ESCAP region reveal that, in 1969, 415 million persons or about 40 per cent of the total population of Asia[1] lived in conditions of absolute poverty. Of these poor, about 355 million lived in rural areas and 60 million in urban areas. These broad magnitudes clearly indicate that poverty is mainly, though not exclusively, a rural phenomenon. Indeed, poverty in urban areas has been exacerbated by the flow of the rural poor to the cities in search of employment, their numbers far exceeding the capacity of the urban sector to provide them with productive jobs.

Within the region, poverty is concentrated in the four most populous developing countries — Bangladesh, India, Indonesia and Pakistan — which account for almost two-thirds of the total number of people living in absolute poverty in the developing world.

Apart from a highly skewed income distribution, the failure to fully utilize the available labour force lies at the root of the poverty problem. Attempts have recently been made in a number of countries of the region to analyse the employment situation more fully, taking into account not only unemployment but also the question of underemployment. Generally, unemployment rates are high in urban areas whereas in rural areas underemployment prevails. The estimates of underutilization of the total labour force range from 10 to 30 per cent. In agriculture, during the slack season, the underemployment rate is as high as 50 per cent in some cases.

The existing backlog of unemployed and underemployed provides only one dimension to the employment problem facing the ESCAP developing countries, the other dimension being the expected acceleration of growth in labour force throughout the 1970s, reflecting the population explosion of previous decades. Whereas in the 1960s the labour force in ESCAP developing countries increased by about 70 million, in the 1970s and 1980s it is expected to increase by about 100 million and 140 million respectively.

In these circumstances, and particularly in the heavily populated countries of south and southeast Asia, there has been a growing awareness, as exemplified by the New Delhi Declaration adopted at the thirty-first session of ESCAP, that any redress of the imbalances created by past patterns of development and any reduction of existing poverty and unemployment will require a new development strategy aimed directly at improving the lot of people living below the poverty line. The main thrust of this strategy must be to generate productive employment opportunities for the unemployed or underemployed and the working poor, particularly in rural areas, rather than to redistribute earned income from the relatively better-off to the poorer sections of the countries concerned.

---

[1] Excluding China and other Asian centrally planned economies.

In many ESCAP developing countries the elements of a rural-biased, employment-oriented, development strategy aimed at growth with social justice can now be seen. The major elements of rural development strategies in these countries concern not only agriculture but include other activities, such as the establishment of agro-industries and other small and medium-size industries in rural areas, the expansion and operation of the rural economic and social infrastructure by labour-intensive methods and other broadly-based rural, institutional and organizational reforms. In the case of agricultural production, development plans generally give emphasis to the promotion of labour-intensive methods of farming on small family farm units as being the strategy most likely to achieve the desired output and employment objectives.

It is the purpose of Part II of this *Survey* to look closely at the existing role of the small family farm in rural and general economic development in the ESCAP region. No attempt is made to survey in detail the position of small farmers in individual countries but rather to look at the general nature of problems confronted by small farmers, drawing upon regional examples for illustrative purposes. From the analysis of his problems in such diverse areas as the marketing of his output, the acquisition of inputs, the transfer of technology, the availability and use of irrigation facilities and the nature and pattern of land distribution and tenure, the concluding chapter discusses urgent institutional reforms which are considered essential for the raising of the productivity and incomes of small farmers.

Part II concentrates upon small farmers because they are an important and identifiable target group with a particular set of problems to which a particular set of policies apply. In no way does this suggest that there are not other important target groups in rural areas, such as the landless poor or the small but marginal and non-viable farmer. It does suggest, however, that, while many of the remedial measures suggested for small farmers, such as land reform or a more labour-intensive pattern of agricultural development, will favourably affect the lot of the landless poor, in general their problems require different analysis and different remedies. Nevertheless, the institutional-cum-organizational reforms which are necessary in rural areas to promote a successful small farmer development strategy must include rural society as a whole if they are to be successful.

2. *The small farmer*

The purpose of this chapter is threefold: first, to indicate the arguments in favour of a small farm development strategy, second, to identify small farmers and third, to indicate the significance of the small farm subsector in the ESCAP region.

Given appropriate institutional reforms which will make agricultural production more genuinely neutral with respect to scale and the removal of the distortions in factor markets, it should not matter, as far as economic growth is concerned, whether a small-farm or large-farm strategy or some combination of them is pursued. As long as an equitable income distribution remains a goal of government policy, however, there can be no doubt that, with one exception, a small-farm development strategy, with its far less highly skewed pattern of land ownership, should represent the preferred strategy of Governments seeking growth with social justice.

The exception is a large-farm strategy based on the communal ownership of the means of production. Such practices are now common in China and some other socialist countries in the ESCAP region. The development of such solutions, which may prove to be economically as efficient as the small-farmer strategy urged here, would seem to require such drastic political change as to be unacceptable to the market-oriented economies of the ESCAP region. It is upon a solution of rural development problems in these latter economies, with their strongly institutionalized private ownership of land, that this *Survey* concentrates.

The over-all efficiency of a small-farm development strategy depends first of all upon whether or not current agricultural production practices approximate scale neutrality. The results of the application of two of the most important inputs of the green revolution, the new seeds and fertilizers, are neutral to scale. With respect to other inputs like irrigation and mechanization, purchase of inputs and sale of outputs, it is very often not so. However, economies of scale in these areas can be captured by small farmers through appropriate institutional-cum-organizational change.

The second important factor affecting the efficiency of small farming is the existence of distortions in factor markets which are responsible for the adoption of more capital-intensive techniques of production on large farms as well as for underemployment and unemployment in rural areas and a less than optimal level of agricultural output. The elimination or reduction of these distortions in factor markets is possible if appropriate economic policies are adopted by the Government and if required institutional, including land, reforms are effected.

In addtion, only by the reduction of factor market distortions and by the adoption of a more uniform pattern of land ownership can a more equitable distribution of income be secured in rural areas. Moreover, the long-term social and political stability upon which economic growth depends may require the adoption of such policies. Finally, a more egalitarian income distribution in rural areas and the adoption of more labour-intensive types of production techniques would give rise to a demand for a pattern and type of industrial development that would be more consistent with the factor endowments and income distribution objectives of developing member countries of the ESCAP region.

In defining the small farmer, we have set the minimum size of farm unit as one on which he generates a more than subsistence income or on which he has the potential to do so once appropriate institutional reforms have been carried out and economic policies adopted to remove factor market distortions. In other words, some net savings should be possible out of income if our small farmer is to operate a viable enterprise and expand his output and income over time. Measures adopted to assist the viable small farmer will of course assist the small landowner or cultivator who cannot even in a potential sense generate an above-subsistence income, but, in the long run, other policies need to be devised to deal with his situation and that of the landless labourer.

At the upper limit, no precise general definition of a small farmer is possible. It would seem appropriate for each country to define the upper limit in terms of some income criteria appropriate to the conditions in that country. In practice, household and *per capita* income figures are not always available by output sector and many countries have used unit size of farm as a proxy.

Compared with other parts of the world, Asia is the region with the largest concentration of small farmers. In the early 1960s, out of 97 million agricultural holdings in Asia, about 45 million or 46 per cent were under 1 hectare in size, about 21 million or 21 per cent were between 1 and 2 hectares, and about 20 million or 20 per cent were between 2 and 5 hectares. The holdings in these three size categories comprise respectively 9, 12 and 25 per cent of the total agricultural area, which provides some measure of the inequality in land distribution.

In Indonesia, Bangladesh, Sri Lanka and the Republic of Korea, small holdings are a dominant factor in the agricultural structure, farm households of up to 2 hectares representing between 83 and 88 per cent of the total number of farms and cultivating around half or more of the total area.

In the Republic of South Viet-Nam, the pre-revolution structure of holdings was also characterized by the prevalence of small holdings: 78 per cent of all holdings were under 2 hectares and cultivated about 36 per cent of the total land area.

In India, Pakistan and Malaysia (West), the percentage share of holdings up to 2 hectares in the total number of holdings ranged between 64 and 70 per cent. The respective share of these in total cultivated area amounted to about 21 per cent in India (1970/71), 15 per cent in Pakistan (1960) and 15 per cent in Malaysia (1960).

In Thailand and the Philippines, the share of small holdings up to 2.4 hectares and 2 hectares respectively in the total number of holdings tended to be much lower, 48 and 41 per cent respectively, cultivating about 15 and 12 per cent of total cultivated area. However, if the farms in the range of 2 to 4 hectares (in Thailand 2.4 to 4.8 hectares) are included, the respective shares rise for Thailand to about 75 per cent (number) and 42 per cent (area) and for the Philippines to 74 per cent (number) and 35 per cent (area).

Another feature of the agrarian structure in Asia is the great number of holdings of 0.5 hectares or less in size. The numbers of these are greatest in countries with high population pressures on land, although the skewed land distribution pattern is also a contributing factor.

The significance of the small farm subsector in agricultural output is difficult to estimate. Nevertheless, from sample surveys which have been carried out in respect of the yields per hectare on farms of various sizes, it appears that small farms tend to achieve higher yields. Therefore, it is quite plausible to conclude that the share of small farms in total output would be at least equal, if not larger than their share in total cultivated area. The share of small farmers in the marketed surplus, however, is likely to be much smaller due to the higher proportion of produce used for meeting subsistence needs and, in the case of share-cropping arrangements, to the proportion of output surrendered by the tenant to the landlord.

In the following four chapters the problems of small farmers in the ESCAP region are examined in four major areas: technology, marketing, financial resources and land reform. The final chapter brings together recommendations for institutional change to make a small farmer development strategy possible.

3. *Technology and the small farmer*

The green revolution represents the main technological breakthrough in agriculture with a potential for increasing the welfare of the small farmer. His experience with the new technology can be examined in relation to four items: high-yielding variety seed, fertilizers, irrigation facilities and mechanization, as they comprise the four major complementary inputs in the technology of the green revolution.

The high-yielding variety seeds are a catalyst which calls forth changes in the other three areas of technology. These latter three must be present and correctly used for the full potential of the HYV seed to be realized, although some increase in productivity can certainly be gained by the application of one or more of these inputs.

An analysis of the use of HYV seeds by small farmers in the Republic of Korea and India shows that they generally used high-yielding varieties less than did large farmers, that if they adopted the HYV seed they used it on a larger proportion of their farmland and that they considered resource constraints to be the main hindrance to the seed's adoption. Improvement in credit systems and an upgrading of extension services would go a long way toward removing these constraints.

Chemical fertilizers have a high benefit/cost ratio, but they are commonly underutilized or inefficiently used by small farmers in the ESCAP region. This low utilization appears to be due to four major factors: the lack of credit for small farmers, the unwillingness of small farmers to take the high risks involved in fertilizer usage, the inadequacies and inefficience of fertilizer supply schemes and the paucity of information provided for small farmers.

There has been a considerable expansion of irrigation facilities in the region since 1960, both reservoirs and canal systems and tube-wells. It seems, however, that small farmers rely disproportionately on irrigation from tanks and other rain-fed sources of water, with the concomitantly greater risk of water shortage. Social integration and co-operation is an essential aspect of irrigation use, maintenance and improvement. Some evidence indicates that small farmers may be at a disadvantage in undertaking co-operative water management, especially in connexion with large-scale irrigation systems.

Policies to encourage mechanization in ESCAP countries must take into account social rates of return, particularly the effect on employment, in addition to their economic rates of return. The advisability of mechanization varies, depending on the crop and local conditions. In some cases, mechanization can relieve labour pressure at seasonal work peaks or make double cropping possible, or mechanization may be employment-generating because of the resulting increase in output or because of indirect employment effects. On the other hand, mechanization may be labour displacing. Intensive study of local socio-economic conditions is necessary prior to advocating policies for mechanization in any locality.

As far as small farmers are concerned, even investment in a power tiller or a tube-well is not likely to be possible on an individual basis nor is the small farmer likely to be able to carry out the maintenance needed. Mechanization for small farmers will need to be based on the collective use of equipment, either by renting machines or through co-operative ownership.

An examination of the process of technological diffusion and adoption shows that there are a number of impediments affecting small farmers. It is the wealthier, more influential and more knowledgeable farmers who first adopt innovations. Small farmers do benefit from new technology, but with a time lag that can be reduced if agricultural programmes are successfully implemented.

Small farmers are also inhibited in innovating by their inability to bear risk which may be greater with the new technology than with the old methods. Their position can be ameliorated by reducing the cost of inputs and providing more and better information about the new methods.

The diffusion of technology is also influenced by the nature of the community in which the small farmer operates. The receipt of information by the small farmer often depends on its communication to him by village leaders and his use of new technology depends on the co-operativeness of the community in mobilizing and allocating resources. In areas where the communication and co-operative systems are weak, it may be necessary to establish new institutions that can fulfil these roles. Of particular importance are research institutions that produce technology appropriate to the small farmer's situation and effective extension services. In the past, many research findings have not been fully tested under diversified local conditions and with local resource availabilities before being released. Programmes have also been hampered by the lack of feed-back from the farming community to the scientist. Extension services have suffered from a number of well-known problems. There is a need to institute localized need-based programmes, to upgrade the knowledge and skills of extension workers, to establish a suitable incentive system for helping small farmers and to encourage them to organize themselves into self-reliant groups.

4. *Marketing*

The availability of marketing facilities is one of the most important prerequisites for a breakthrough into cumulative growth. On the one hand, marketing provides an incentive to increase production of subsistence crops and to diversify into cash crops. On the other hand, the increased integration of the economy that takes place along marketing channels opens the way for the spread of modernization to traditional rural areas and creates and strengthens linkages between rural and urban sectors and between agriculture and industry. The importance of marketing as a key factor in development is being increasingly recognized and Governments' concern with promotion of an efficient marketing system is growing.

Small farmers, however, labour under a number of disadvantages in marketing their produce. First, because their individual sales and input purchases are small, they are unable to take advantage of the economies of scale that are important in marketing, such as bulk selling and purchasing, storage and transportation.

Second, small farmers rarely have the political power to influence decisions regarding the provision of marketing infrastructure provided by public authorities. They are therefore at a disadvantage vis-à-vis large farmers in capturing the external economies that arise from the provision of such facilities as transportation and market centres.

Third, small farmers may face imperfections in the market — some degree of monopsony power by the trader — in many cases exacerbated because the trader may also be the money-lender or landlord. Finally, because of poor government regulation of weights and measures and lack of laws to control trading practices or their poor enforcement, small farmers may again be at a disadvantage in comparison with large farmers.

This chapter of the *Survey* discusses in detail the problems that arise for small farmers in the ESCAP region in three major areas of the marketing system. The first items discussed are transport, storage and standardization. Next is the question of the provision of market information systems. The third area of interest is the small farmers' problems with the institutional structure within which he works. In short, how efficient and how just is the market system that he faces.

On the basis of this analysis of small farmer marketing problems, three conclusions are reached on which to base recommendations for action. First, small farmers clearly lack technical facilities that contribute to the development of an efficient marketing system. Feeder roads are poor, information is lacking and standards are not set or enforced.

Second, it is not possible to treat marketing problems successfully if they are treated separatedly from the farmers' other needs. Marketing cannot be divorced from a consideration of production relationships. Farmers need integrated assistance. Otherwise, they may be unable to avail themselves of improved marketing facilities because of the existence of other impediments in the agricultural system. A good example is the need for marketing credit if farmers are to be able to use storage facilities.

Third, it is not possible, on the basis of present knowledge, to reach any general conclusions about the structure of the market that faces small farmers. The traditional attitude has been that traders benefited from some degree of monopsony power. Some evidence is available to the contrary, particularly from India. The market situation varies depending on the crop and the locality. Market structure is a question that can only be decided on the basis of detailed research of particular situations.

The following recommendations are made to assist small farmer marketing. First, a great deal can be achieved by the provision of technical facilities and the regulation of marketing practices. Inefficiencies that arise from poor transportation, storage, information systems, inadequate and poorly serviced market centres and lack of standardization hamper any market system whether it be private, public or co-operative. Governments have a major role to play in providing improved facilities and in policing established standards and the honesty of the dealings between farmer and trader. In some circumstances this can best be done by the Government entering the marketing sector on a commercial basis in competition with private traders.

Second, Governments can take steps to free the small farmer from constraints in his production relationships which will open the way for him to make decisions purely on the basis of the marketing options open to him. Such action could involve, for example, the provision of credit on the basis of expected output rather than collateral, or the provision of consumption credit on the basis of storage receipts in public or co-operative storage facilities.

Third, because there are economies of scale available in marketing, Governments could encourage the development of institutions for joint action by small farmers and provide these institutions with assistance, both financial and managerial, in the early stages. But these institutions must be expected to enter the market place and compete freely for the farmers' custom with the existing private trading system.

5. *The mobilization of financial resources*

The demand for credit by the small farmer in Asia will grow substantially as he successfully participates in the green revolution. He and those who organize activities to service his operations will require additional credit, both short-term and long-term. Credit will be needed not only for financing production but also for the conversion of existing debt that might be held on unsatisfactory terms and for some consumption purposes. Since the current capacity of small farmers to save is low, there will be a need to mobilize savings from other sectors, even though the small farmer will be able to generate increased savings as his income rises.

The suppliers of credit to small farmers fall into two groups: the informal market and the formal. To date, most of the needs of the small farmers have been met in the informal market, mainly from relatives, friends and money-lenders. The advantages of this source to the small farmer are that credit is available for most of his purposes — including consumption and emergency needs, that the farmer is in close proximity to the source of credit and that the process of borrowing and repayment is not encumbered with unfamiliar procedures. These advantages from the small farmers' point of view must be set against the high cost of this credit, whether paid in the form of interest or by other means. The heavy dependence of the small farmer on the informal market is the cumulative effect of two sets of forces in the rural areas: the strength of communal ties and the difficulty that the small farmer experiences in obtaining access to the formal credit market.

Credit suppliers in the formal market serve only a very small segment of the requirements of the small farmer. Credit is available from these agents at cheaper rates than in the informal market, but there are a number of disadvantages that increase its real cost. The distance to retail credit points is often considerable, entailing substantial travel costs. Credit is not available for all purposes as in the informal market. The small farmer is daunted by formalities in obtaining and repaying credit, such as the need for collateral when many small farmers are tenants, or if owners, lack legal title to their land. Delays in supply substantially reduce the usefulness of credit, and the small farmer is at a disadvantage in competing for funds because of his size — his loans having roughly the same processing costs as larger loans.

To date, commercial banks have not proved a successful means of bringing credit to the small farmer in spite of special assistance and encouragement by some Governments. Banks are usually urban-oriented with branches spread thinly over the countryside. The situation has not improved in those countries where commercial banks have been regulated or nationalized and directed to make credit available to the small farmer. Some interesting efforts are under way in an effort to remedy this situation, such as the Lead Banks and Farmer Service Societies in India.

Many countries have used co-operative societies as distributors of credit to small farmers. But the societies have become notorious for their inability to collect outstanding loans, their dependence on other institutions for finance, their inefficient and poor management and the diversion of their purpose to that of serving élite groups in the rural sector. Nor have they, on any satisfactory scale, served as institutions for mobilizing small farmers' savings.

There have been efforts to reap economies of scale by running co-operative societies as multipurpose institutions rather than as merely credit societies, but the advantages go beyond economies of scale. A multipurpose co-operative society providing credit, agricultural inputs and marketing facilities is a much closer substitute for the local trader/money-lender. Some of the most successful co-operative societies have been multipurpose organizations, such as the co-operative societies in the Republic of Korea since 1961, the BIMAS programme in Indonesia in its initial stages and the Palugama society in the Badulla district in Sri Lanka.

Government departments, agencies and enterprises have been a significant source of credit for small farmers, although there has been a recent tendency for Governments to withdraw from direct lending and channel their funds through other institutions, such as banks and co-operative societies. In some countries of the region, the central banks have been given an important role in directing and financing institutions that provide rural credit. It is important that crop insurance be provided to farmers in order to enhance their credit-worthiness.

In spite of the higher rates of default and costs of administration, credit has been made available at lower interest rates by the formal market than by the informal. It is suggested that a rise in the formal market rates more in line with rates in the informal market in other sectors of the economy could increase the flow of savings to those institutions serving the rural areas to the benefit of the small farmer. The direction of more investible resources to the small farmer through the formal money market would, to some extent, release the pressure of demand for credit in the informal market on non-price factors.

6. *Land reform*

The case for land reform in developing ESCAP countries is based on the need for an egalitarian farm structure which maximizes incentives to individual operators. Land reform must therefore be an integral part of an effective programme for the benefit of small farmers.

The question of land reform has two aspects. The first is concerned with farm size and the distribution of farm units. This may involve the direct break up and redistribution of large land-holdings or it may be approached through changes in the tenurial system through land-to-the-tiller type programmes.

The second aspect concerns tenure. The purpose here is to improve income distribution by shifting a greater part of the income from land to the farmers and to increase production and investment incentives by providing greater security for the producer.

Traditionally, family farming has been the rule in Asia, but, over the last two or three hundred years, land has been progressively alienated from the small family farmer. Large areas in most Asian countries are now cultivated under a variety of tenancy and crop-sharing arrangements. Although the situation varies from country to country, most tenants and sharecroppers are either without any land of their own or own petty holdings. Together with the landless agricultural workers they constitute a sizable section, if not the majority of the rural/agricultural population.

With the advent of independence in the countries of Asia, the demand for land reform mainly for social justice and political reasons escalated. Today the economic reasons for land reform have grown in importance. In the last 25 years, some measures have been adopted in almost every country. In socialist countries, such as China and the Democratic Republic of Viet-Nam, the approach has aimed at the complete abolition of landlordism, followed by reorganization of agriculture on co-operative or collective lines. In non-socialist market-oriented countries, the objective has been to remove the basic defects in the agrarian structure and establish family farming under ownership tenure.

Generally speaking, the measures taken can be classified into four types. The first is related to abolishing the rights of semi-feudal landlords and making the occupiers the owners of land. The second relates to reform of tenancies, subtenancies and crop-sharing arrangements. In some countries this has been attempted through regulation, in others through the abolition of all tenancies — this approach has by and large been more effective than regulation. The third set of measures relates to the placing of ceilings on agricultural holdings. This has usually been applied to land under tenancies and not to land managed by owners. The fourth set of measures relates to the distribution of homestead lands to landless agricultural workers or to the conferment of rights over homesteads already in their possession. These measures too have had limited success.

An examination of past experience with land reform in the ESCAP region shows that, although Governments are committed to such programmes, their effectiveness has been limited. There are many interrelated causes for this, but four factors can be singled out as of particular importance in a successful reform programme. The first is the political factor. In many developing countries, land is a symbol of authority and a source of political power and, unless the character and composition of the political élites change, Governments may not have the will to bring about a major change in the political structure.

The second factor of importance in making land reform effective is the development of the beneficiaries as a political force to ensure further implementation of the reforms.

Thirdly, participation of the beneficiaries through their own organizations should supplement action by a sympathetic rural administration. In many countries, rural administrative officers are recruited mainly from the rural élites and are therefore biased against any movement that aims at altering the existing social arrangements.

Fourthly, it is important to recognize that land reform can rarely be undertaken without considerable upheaval and loss of production. The restructuring of land-holdings is often accompanied by the destruction of traditional delivery systems and marketing since these systems are very often tied to the operations of larger farmers. Concurrently with the implementation of land reform, therefore, it is necessary to produce services for small farmers to replace those that will be disrupted by the restructuring of land-holdings.

It cannot be expected that land reform in the ESCAP region will have any significant impact on the size of operating farm units. With growing population pressure and lack of alternate employment opportunities, subdivision of existing farms will continue and farm size will decline, leading in many cases to fragmentation and resulting inefficiencies.

Because of this, several countries in the region have initiated land consolidation programmes. However, a prerequisite to land consolidation is a stable land tenure structure so that all the parcels of land in which a farmer has acquired stable permanent rights are consolidated in his holdings.

7. *Institutional reform*

Economic development strategies of the past 25 years in the ESCAP region have failed to improve the condition of the vast mass of the rural poor, including small farmers. However, a new approach to rural development which seeks to combine growth with social justice is now receiving considerable attention.

This approach has four principal characteristics. First, it emphasizes the participation, in both the planning and the implementation of development-oriented activities, of those whom it is intended that development should benefit. Second, it entails an integrated approach so that several different aspects impinging on the development process are tackled together. Third, it recognizes that rural activities need to focus directly on the rural poor. Fourth, it also recognizes that, for development to become institutionalized, it is essential that independent organizations of rural people be fostered and that this be effected simultaneously with a devolution of power from central governing institutions and existing organs of rural administration to local self-governing bodies.

This new approach to development has several advantages over previous strategies of rural development. First, it takes fully into account the non-economic factors of development. Second, it seeks to integrate a variety of inputs so that various institutional reforms and government economic policies work hand-in-hand to effect desired changes in the rural milieu in which development is to occur. Third, it gives to the intended beneficiaries of development the primary responsibility for conceiving, implementing and evaluating development programmes. Fourth, the approach builds into all programmes a significant measure of flexibility and enables priorities to be established on the basis of an intimate knowledge of varying local conditions. Finally, it provides an institutional feed-back procedure.

Rural people have a number of attributes produced by their social, cultural and political milieu which planners often fail to take appropriately into account in preparing programmes for the rural area. From the outside these attributes may appear irrational, but, given the farmers' environment, they are likely to lead to appropriate behaviour in dealing with existing situations.

One particular concern, if rural development efforts are to be effective, is the problem of providing the community with new leadership which has managerial and technical skills and which is motivated to represent the interests of the small farmer and other disadvantaged functional groups in the community. The creation of this leadership has two prerequisites: an institutional restructuring of rural society and the provision of non-formal education for rural people.

Rural institutional infrastructure designed to assist the small farmer must ensure him access to needed resources of technical advice and information as well as the co-operation of his peers: it must produce leaders who willingly represent his interests; it must devolve ultimate responsibility for decisions upon him rather than outsiders; and it must place critical rural institutions at a level above that of the village in order to give each institution an adequate resource base and to break the rigidity of traditional village-level power structures.

In order to create this institutional infrastructure, there must, in the first place, be a proliferation of various kinds of institutions sufficient in number to provide easy access for the small farmer to the organizations he needs to serve his many interests. This multitude of organizations will provide an opportunity for the rise of new leaders from previously disadvantaged groups to fill positions in the organizations dealing with their problems. They will be able to gain experience and eventually enter into competition with traditional leaders for local positions of power.

Although there is an important role for village-level organizations, it is critically important that these be linked to organizations at the township or county level where the principal decision-making authority would be vested, administrative services provided, and technical assistance located.

Most important, rural institutions would place responsibility on those who are expected to benefit. However, this decentralization of decision-making authority does not diminish the role of the central government in effecting local development. Rather it refocuses the role to the provision of advice, enforcement of standards of conduct of local officials and creation of a climate conducive to institutional change in rural areas.

One special area of responsibility of the central government remains the provision of appropriate knowledge and skills to the small farmer. This, however, will require the refocusing of methods previously used that have emphasized formal education and theoretical knowledge. Reforms to the education system for the benefit of the small farmer should include the establishment and expansion of non-formal education opportunities, emphasis on problem-solving methods and the utilization of skills to improve agriculture.

Effective non-formal education requires greater emphasis to be placed on self-education and peer-group education and on the development of linkages with other rural development activities and programmes. To accomplish this, the methods of selection of students and training at agricultural schools and technical institutes must be changed to meet the practical agricultural requirements of farmers. Appropriate villagers should be elected as local agents of agricultural change with whom extension workers could relate.

Literacy is not a prerequisite for the success of this programme. Many other vehicles and methods are available for the transmission of knowledge and skills. But the farmer must be met on his own ground, with information he needs, by people he can trust.

If Governments wish to pursue rural development without precipitating violence and too-rapid change in the countryside, it is essential that rural people be encouraged to organize themselves voluntarily to pursue their several interests. Governments must assist the organization of those rural people hitherto denied voices in rural and national affairs in order to build up countervailing forces to established power groups. But these new units of organization must be local, private, non-governmental and voluntary, and must be political as well as social and economic in nature. Opportunities must be provided for the politically-conscious disadvantaged rural people — small landowners, tenants, sub-marginal farmers, landless agricultural labourers — to organize and make their concerns felt at the decision-making levels of government. Otherwise, potentially violent eruptions may be expected.

It should also be recognized that rural society is pluralistic and therefore the interests of small farmers need to be expressed through a variety of organizations with particular fields of interest. Organizational pluralism must be included in rural institutional reform.

In the past, the co-operative, as a self-contained institutional entity, has often been given exclusive attention by rural development strategists. Many failures have occurred, but co-operatives continue to be proclaimed by many advocates of agrarian reform as if they alone could solve all the problems of rural society. Their record in ESCAP countries belies this enthusiasm.

The reason for the apparent inapplicability of the co-operative concept in ESCAP countries is that the ideological component of co-operation is at present incompatible with the environment in which co-operatives are expected to flourish. Co-operatives themselves have incompatible goals: they are expected on the one hand to operate on a co-operative democratic basis of one-man, one-vote, and on the other hand they are businesses. Given the present environment, this means they are likely to be operated for the benefit of the established élites. The only way out of this dilemma is for Governments to create, through structural change in the rural areas, conditions in which co-operatives can be instruments for social justice and broad-based economic growth.

If co-operatives are to be successful, they must first be organized in response to the desires of prospective members, not to the needs as determined by higher authority. Second, the primary role of the Government should be the ensuring of the strenuous enforcement of managerial honesty, voting privileges of members, adherence to by-laws and the unbiased disbursement of benefits. Third, local co-operatives should be horizontally linked with other co-operatives and also informally linked in tiers of co-operative administrative units to policy-making branches of the central government, thus providing for continuous interchange between private and official instruments of developments.

An area of concern in regard to co-operatives is the degree to which membership needs to be "homogeneous" in order to ensure that benefits are equally distributed to members. This is a subject of controversy. A far more effective device to ensure equitable distribution of power and benefits, rather than restriction of membership, is an education programme regarding the participatory responsibilities of members and enforcement of legal restraints to corruption and bias.

Another area of discussion is the value of multipurpose co-operatives. Considerable emphasis is now generally being placed on this form of co-operative in order to ensure the co-ordinated delivery of a variety of agricultural inputs. On the other hand, the encouragement of multipurpose organizations runs counter to the need for organizational pluralism in rural areas.

Co-operatives are often charged with the provision of credit to farmers, but a review of small farmer credit facilities has shown that no private sector institutions, whether co-operatives or commercial banks, have evolved to satisfy the credit requirements of small farmers. A great many measures can be taken by Governments to increase the flow of funds to farmers through the formal credit market, but a single factor solution to this problem is inadequate. Small farmers need a whole range of institutional reforms through which they can develop the self-reliance and entrepreneurial zeal necessary to demand and successfully use the supplies and services created. Such reforms will also need to allow rural people an active, participatory role in the functioning of public instruments of change, particularly local governing institutions.

Corresponding to the need for participation by farmers in private rural institutions, it is necessary to allow rural people to participate in planning, implementation and evaluation of public programmes of rural reconstruction. This will require the decentralization of decision-making powers to lower levels of governmental authority. But, as with co-operative institutions, it is important that the basic decision-making be established above, not at the village level. In the village, rural change requires that the people be free of government agents to make their own mistakes and accept responsibility.

Experience in the region provides some lessons regarding local government institutions. First, agents of government should be advisers only and act as intermediaries between local units of self-government and national-level administrative units. Second, institutes must be established for the training of locally-identified leaders, chosen by their peers, in aspects of rural reconstruction. Third, local self-governing institutions at the village level should be encouraged to form committees which would become the focal point of change in particular areas, such as agriculture and health. Fourth, villagers must be encouraged to invest part of their own time and savings in the development activities that they choose to undertake. All of the above aim to reduce the dependency of the rural people on the central government or its agents.

In addition to local self-governing institutions, there must be a structure which enables local leaders from neighbouring villages to assemble regularly and co-operate on joint projects.

To foster self-governing institutions, there are three institutional prerequisites: money must be placed at the independent disposal of these self-governing units; conditions for the election of leaders on the basis of non-ascriptive attributes need to be gradually provided; and administrative officers should be precluded from offering more than technical or managerial advice and only when requested.

A number of benefits would result for the small farmer. First, local government advisers would be available to train local leaders so that they could pass on their knowledge to their neighbours. Second, new patterns of local leadership would be formed by strengthening the financial independence and self-governing nature of local institutions. Third, locally financed development projects would gradually come to serve the interest other than those of wealthy farmers and small farmers would learn how to organize and to expand their power. Fourth, private enterprise would voluntarily move into rural areas to meet new demands.

Popular participation is a necessary condition for self-sustaining rural development, but institutional reform in both the private and the public sector is also required. This requires the concerted efforts of the central government to shift the balance of power from the urban industrialized sector to the rural agricultural one. With a few exceptions, policies favouring rapid industrialization and urbanization seem to have paid off in ESCAP developing countries. Growth has occurred and the élite in most of the countries remains firmly entrenched and enjoying the fruits of development. But there is a large growing population of underprivileged whose frustration cannot help but increase and whose demands can no longer be denied.

If Governments choose neither the path of increased government control nor major social and political upheaval, a more complicated and indistinct path must now be pursued. This path will involve greater toleration by the central government of dissent and organizations in the private sector, and the legal protection of the organizations of the disadvantaged. It will require the decentralization of governmental administrative units so they can better respond to local needs and the increasing expectations of rural people. Legal and enforcement machinery must be improved and decentralized to ensure that small farmers have as much access as the wealthy to instruments of government authority.

Top priority should be given in all ESCAP developing countries to the development of institutes to adapt, for local usage, technologies developed at international institutes. These institutes should be linked with local demonstration farms. Government investment in an unbiased and efficient extension service must be given top priority.

A major area of institutional change concerns land reform. By creating an environment of small, fairly homogeneous farmers, a land reform programme would go far to remove the monopolies which distort the price of land, labour and capital and would create greater equality in the access to modern inputs. Land reform is the responsibility of central governments because they alone have the authority to implement it in the face of vested interests. Without land reform, many of the institutional reforms mentioned above will have little long-term impact.

A small-farm strategy requires, in addition, a medley of policy shifts affecting the national economy to provide a framework for the institutional changes discussed here. These include taxation, commodity pricing policies, and rural public works programmes too large for local handling, which in the past have been geared to the benefit of the élite.

The reforms discussed in Part II of this *Survey* will be unacceptable to many powerful elements in any society. Yet, unless the great mass of rural people are given the opportunity to participate in the process of their country's development, there appears no other recourse than authoritarian régimes of suppression or eventual capitulation to forces of radical change.

Part One

RECENT DEVELOPMENTS AND EMERGING POLICY ISSUES IN THE ESCAP REGION 1974/75 [*]

---

[*] Because of the unavailability of data and of recent information, it has not been possible to review developments in ESCAP developing socialist economies.

Chapter 1.

THE INTERNATIONAL SITUATION

Before examining developments within the ESCAP region it is necessary to survey briefly the major events in the world economy which strongly influence affairs in developing countries. By post-war standards, the performance of the world economy in 1974/75 was considerably below a level consistent with the attainment of the objectives of the Second United Nations Development Decade. During 1974 and throughout 1975 the world economy experienced not only an unprecedented slow-down in the level of economic activity but, in the case of several major industrial economies, an actual decline in output accompanied by unusually high levels of unemployment. At the same time, although abated, the severe inflation of 1972 and 1973 continued during the recession of 1974/75. One major consequence of the recession in industrial countries was the inevitable spread of its effects to the developing countries from the middle of 1974.

Because of the unprecedented momentum of the inflation in 1972 and 1973, developed industrial countries have been tentative and cautious in their use of anti-recessionary measures, fearful that they refuel the inflation which has been declining during the recession. Indeed, severe recession on the one hand and a subdued but still virile inflation on the other, emphasize the need for flexibility in the devising and application of economic policies. In turn, the latter makes economic forecasting a hazardous business.

While the magnitude of the depression, the level of associated unemployment and the continued inflation in 1974/75 give cause for grave concern, a number of encouraging aspects became apparent by mid-1975. There was evidence that expansionary policies adopted to combat the recession were leading to an expansion of economic activity, albeit a slow and tentative one; that inflation might be held to lower levels; and that the seemingly intractable balance of payments problems posed by the oil price increases, were manageable as far as the industrial countries were concerned. However, there is increasing evidence that the anticipated current account problems of the industrial countries are reappearing in more serious form in the balance of payments positions of the developing economies and that balance of payments constraints could severely reduce development prospects for the most seriously affected of them.

(a) *Output and prices*

As table 1 indicates, the world economy grew in real terms in 1973 at the record rate of 6.4 per cent in terms of real gross national product, but in 1974 the rate of growth fell dramatically to 1.0 per cent. In the industrial countries, the strong rate of expansion in real gross national product in the first half of 1973 was followed by a sharp fall in output in the second half of the year and by a negative rate of growth in output in 1974 and early 1975. For these countries considered as a group, real GNP is estimated to have fallen at an annual rate of 4.0 per cent from the second half of 1974 to the first half of 1975. Several factors brought about this unprecedented drop in the absolute level of output in industrial countries. Firstly, consumer demand declined in real terms as fears of unemployment and doubts about the real purchasing power of incomes increased. Secondly, foreign demand declined as a consequence of both the fall in non-oil-producing developing country imports and the decline in the level of economic activity itself. Finally, private investment fell in absolute terms essentially because long-term growth prospect was unfavourable and partly because of the tight monetary policies adopted to deal with inflation, the rise in inventories following the cut-back in domestic consumer and foreign demand, and the squeeze exerted on profits by substantial increases in wages and associated real unit labour costs.

The recession in developed economies since 1973 has had an even more severe effect on the growth prospects of developing countries than the estimates of actual growth rates in developed countries indicate. Measurements of the potential GNP which could be obtained if all resources were fully utilized are subject to a number of criticisms, but they do point to the considerable underutilization of resources in the recession. According to IMF estimates, the gap between actual and potential estimates of GNP in the first half of 1975 was around 12 to 14 per cent in the United States and Japan and some 7 to 8 per cent in Canada, the Federal Republic of Germany and Italy, with smaller orders of magnitude in other industrial economies.

The sharp reduction in output growth in the industrial countries had its impact on the developing countries. While table 1 indicates only a small drop

Table 1. GROWTH OF WORLD OUTPUT, 1960-1974

(percentage changes in real GNP)

	Annual average[a]			*Change from preceding year*				
	1960-1970	*1960-1965*	*1965-1970*	*1970*	*1971*	*1972*	*1973*	*1974*
Industrial countries	4.8	5.1	4.5	2.6	3.7	5.7	6.2	—0.2
Canada	5.2	5.6	4.8	2.5	5.8	6.0	6.9	2.8
United States	4.0	4.9	3.2	—0.4	3.3	6.2	5.9	—2.1
Japan	11.2	10.2	12.1	10.3	6.8	8.7	10.2	—1.8
France	5.7	5.7	5.6	5.8	5.3	5.7	6.0	3.9
Germany, Fed. Rep. of	4.9	5.0	4.8	5.8	3.0	3.4	5.3	0.4
Italy	5.6	5.3	5.9	4.9	1.6	3.1	6.3	3.4
United Kingdom	2.7	3.2	2.2	2.1	2.2	3.4	5.4	0.3
Other industrial countries[b]	4.9	5.0	4.7	5.6	3.2	4.7	4.2	2.7
Primary producing countries	5.6	5.3	5.8	6.6	5.4	5.7	7.1	5.6
More developed[c]	5.8	5.9	5.8	6.0	5.7	5.6	6.1	3.5
Less developed[d]	5.5	5.1	5.8	6.9	5.2	5.7	7.6	6.4
World	5.0	5.1	4.8	3.4	4.0	5.7	6.4	1.0

Source: International Monetary Fund, *Annual Report, 1975*, table 1, p. 3.

Note: It should be noted that the analysis in the text based on this table does not cover the large majority of the centrally planned economies and the terms "world economy", "world output" etc. should be interpreted accordingly.

[a] Compound annual rates of change.

[b] Austria, Belgium, Denmark, Luxembourg, the Netherlands, Norway, Sweden and Switzerland.

[c] Comprise Australia, Finland, Greece, Iceland, Ireland, Malta, New Zealand, Portugal, South Africa, Spain, Turkey and Yugoslavia.

[d] Comprise IMF member countries not listed above as "Industrial countries", or as being "More developed" (foot-note [c] above).

in the over-all growth rate to 6.4 per cent in 1974 — a figure consistent with the record of the 1960s and 1970s — the performance of the non-oil-producing developing countries was much less impressive compared with the average growth rate for oil-producing developing countries of about 9.0 per cent. Furthermore, the non-oil-producing developing countries were only able to maintain the growth rates realized by maintaining the volume of imports in 1974 and early 1975 at reasonably high levels at the cost of exacerbating their external debt-servicing position and depleting their foreign exchange reserves. Such options were not available in many instances in the second half of 1975.

In the industrial countries considered as a whole, inflation as measured by GNP deflators accelerated from a high of 7.0 per cent per annum in 1973 to a record 11.7 per cent in 1974. In the first half of 1975 the rate has fallen to about 10 per cent. Taken in conjunction with excessive unemployment and the fall in absolute output, the inflation produced a set of circumstances unique to post-war experience. The cause or causes of the inflation have been well documented. As a whole, the inflation can be attributed to a remarkable degree of coincidence in the timing of many factors, including the effects of the excessively expansionary monetary and fiscal policies of 1972 and 1973; the accelerated formation of attitudes and institutional practices geared to expected rises in prices, wages and costs; and the impact of commodity and oil price increases.

Apart from lax domestic policies which gave rise to inflation in their own economies, price increases in developing countries were also exacerbated

Table 2. PRICE INCREASES IN LESS DEVELOPED COUNTRIES, 1965 TO FOURTH QUARTER 1974

(percentage changes in consumer prices)[a]

	Annual average 1965-1970[b]	*Change from preceding year*				*Fourth quarter 1973 to fourth quarter 1974*
		1971	*1972*	*1973*	*1974*	
Less developed countries	13	10	12	21	29	29
Africa	6	6	5	9	17	17
Asia	16[c]	6	8	18	31	28
Middle East	4	5	6	10	17	17
Western hemisphere	15	15	20	29[c]	36[c]	36[c]

Source: As for table 1.

[a] Calculated from weighted geometric means of country indices expressed in terms of local currency. Weights are proportional to GDP (in US dollars) in 1970.

[b] Compound annual rates of change.

[c] Excluding one high-inflation country, the Asian figure in the first column would be 7 per cent; with a similar exclusion, the western hemisphere figures in the last three columns would be 20 per cent, 25 per cent, and 27 per cent, respectively.

by the inflation in the developed economies and by the general rise in the prices of commodities and oil. Available data on consumer prices indicate that, for the less developed countries, inflation accelerated considerably in 1973, to level out at a high rate in 1974. It tended to average around 20.0 per cent per annum for oil-producing developing countries and at over 30 per cent for non-oil-producing developing countries. Table 2 sets out the annual inflation rates for the developing countries.

(b) *International trade and payments*

The international trade and payments system was strongly marked by four major developments in 1974/75: from the first half of 1975 there was a contraction in the volume of world trade; the decrease in the volume of trade was accompanied by a slow-down in the rate of increase of the prices of goods traded internationally; marked differences in the rate of change of prices of different commodity groups gave rise to sharp changes in the international terms of trade of many countries; and the combined effect of volume and price changes in international trade caused severe disequilibrium in the balance of payments situations of many countries, including in particular the non-oil-exporting developing countries.

As table 3 makes evident, world trade increased by some 5.0 per cent in real terms in 1974, which was less than the 13.0 per cent increase obtained in 1973 or the 8.5 per cent average annual rate of increase attained in the 1960s. Incomplete data for 1975 suggest that the volume of world trade has fallen further in 1975, with industrial and non-oil-producing developing countries being the most severely affected. In 1974, the exports of non-oil-producing countries increased in volume terms by only 2.0 per cent compared with annual rates of increase of 12.0 per cent in the two preceding years. In 1975, a slight decline in the volume of goods exported is anticipated. Expansion of the volume of imports in 1974 by 12.0 per cent was made possible by heavy borrowing, but this rate of expansion is expected to decline to approximately 7.0 per cent in 1975.

In addition to the volume changes, there were correspondingly sharp changes in the prices of commodities traded internationally. This was the result

Table 3. WORLD TRADE SUMMARY, 1960-1974[a]
(percentage changes in volume, in US dollar value and unit value of foreign trade)

		Annual average 1960-1970[b]	*Change from preceding year*				
			1970	*1971*	*1972*	*1973*	*1974*
World trade[c]							
Volume		8.5	9.5	6	9	13	5
US dollar value		10	14.5	12	18	38.5	47
Unit value[d]		1	5.5	5.5	8	22.5	40
Imports							
Volume	Industrial countries	10	9	6	11.5	12	0.5
	Primary producing countries:				1.5	16	9.5
	More developed countries	9	13	3.5			
	Major oil exporters	4.5	6.5	10.5	12	18	37
	Non-oil developing countries	6	8.5	6.5	1	13	12
Unit value[d]							
	Industrial countries	1	5.5	5.5	7.5	22.5	41
	Primary producing countries:						
	More developed countries	1.5	5	6	9	21.5	42
	Major oil exporters	1	4	5	8	18.5	25.5
	Non-oil developing countries	1	4	6	8	19.5	38.5
Exports							
Volume	Industrial countries	9.5	9.5	6.5	9.5	13.5	7.5
	Primary producing countries:						
	More developed countries	7.5	8	5.5	13	2	—0.5
	Major oil exporters	9	11	8	7	12	—1
	Non-oil developing countries	6	6.5	8	10.5	14.5	2
Unit value[d]							
	Industrial countries	1.5	6	5	8	20	25
	Primary producing countries:						
	More developed countries	2	4	4	12.5	36	27
	Major oil exporters	—1	2	22.5	13	38.5	186
	Non-oil developing countries	1.5	5	—3.5	8.5	27	33

Source: As for table 1.

[a] For classification of countries in groupings shown here, see table 1 (and especially footnotes [b] – [d]).

[b] Compound annual rates of change.

[c] IMF member countries plus Switzerland. Based on approximate averages of growth rates for world exports and world imports.

[d] Based on indices in US dollar terms.

of the increase in oil prices and the boom in primary commodity prices. At the same time, accelerating inflation in the industrial countries gave rise to steep increases in the prices of their exports. In all, in US dollar terms, world trade prices rose by a phenomenal 40 per cent from 1973 to 1974. In the second half of 1974, however, the annual rate of increase had fallen to 20.0 per cent and current indications suggest a further moderation to about 12.0 per cent in the first half to 1975.

Differences in the strength and timing of price movements gave rise to significant terms of trade changes for different groups of countries. The terms of trade of the advanced industrial countries fell sharply in 1974, mainly as a result of the oil price increase, but started to improve again during 1975. In the case of the non-oil-producing developing countries, their terms of trade improved by some 7.0 per cent in 1973 as a result of the commodity price boom, only to fall by some 4.0 per cent in 1974 and further again in 1975 as the combined result of increased oil prices and increases in the prices of imports from the industrial countries which exceeded the increases in the prices of their own exports.

Taken together, the sharp changes in the unit values and volume of trade which took place in 1974 and 1975 have given rise to serious structural balance of payments problems. While the anticipated problems of the industrial countries did not materialize because the oil-producing developing countries were content to leave or invest a large portion of their balance of payments surpluses in these countries, the current account deficit positions of many of the developing countries were exacerbated. The initial influence in this restructuring of the world balance of payments situation was the action of the OPEC group of countries in raising the price of oil, but deteriorating terms of trade between the industrial countries and the non-oil-producing developing countries has been another major influence on the balance of payments situation of the latter group of countries. These countries were forced to pay considerably higher prices for food, fertilizers, oil and other essential imports and their current account deficit of 9 billion US dollars in 1973 more than trebled to an incredible 28 billion in 1974. The financing of this deficit required very heavy borrowing and there was hardly any reserve accumulation in 1974. Most of this borrowing was from the industrial countries, with only a small portion from the OPEC group.

Even more ominous is the projected aggregate balance of payments deficit of non-oil-producing countries in 1975. IMF has calculated[1] that this could increase from the $US 28.0 billion recorded in 1974 to some $US 35.0 billion in 1975, mainly as a consequence of inadequate export earnings by this group of countries. Evidence to hand suggests, especially in the case of the poorer among this group of countries, that commercial borrowing on this scale cannot continue. The alternatives comprise the grim prospect of a reduced flow of essential imports, with a further serious retardation of economic growth rates in these countries, or the provision of substantial increases through international arrangements in the flow of concessionary capital to them to sustain, or mitigate the reduction in, the level of essential imports.

(c) *Implications for ESCAP developing countries*

Four interconnected problems which arise out of the international situation pose serious policy issues for ESCAP developing countries. These comprise the world recession, the problem of inflation, the higher costs of oil, and the short-term and longer-term implications of financing greatly increased current account deficits.

Inevitably, the recession in the industrial countries has spread through the international trading and payments mechanism to affect developing ESCAP countries. With the volume of exports declining, steps were taken in 1974 to sustain the flow of imports by heavy overseas borrowing, and Asian developing countries recorded a deficit of $US 8.7 billion in 1974 compared with a deficit in the previous year of $US 1.6 billion. A continuation of borrowing on this scale in 1975 by all of the countries concerned was out of the question, and some countries have had no choice but to forego imports. This, in turn, has had severe adverse effects on prospects for economic development, further exacerbating the adverse consequences of the decline in the rate of growth of exports. For the most part, reductions in imports were achieved by a continuation of tighter monetary and fiscal policies or by exchange rate alterations rather than by direct controls over trade.

The problem of inflation has proved particularly intractable for ESCAP developing countries. In part, the problem was aggravated in 1973 and early 1974 by the unusually high level of international reserves held by most countries in the region and the excess liquidity they generated. For the most part, however, inflation was imported through the international trading and payments mechanism, and the increased prices of fertilizers, oil, food and other essential industrial goods did not take long to fuel further domestic inflation. Unlike the developed industrial countries, domestic cost-push elements were of less importance than demand factors in the determination of price increases.

---

[1] See *Annual Report, 1975,* International Monetary Fund, Washington, D.C., table 8, p. 16.

A continuing problem, aggravated by the decline in the rate of expansion of export receipts, was the impact of the higher cost of oil and other essential imports on certain industries and on the standard of living of poorer sections of the community in regional countries, particularly those of south Asia. The initial reaction of some countries was an attempt to insulate domestic consumers by means of tariff reductions or various consumption or production subsidies. Many of these attempts were abandoned, however, when the resulting pressure on government budgets added to inflation, and efforts were then made to adjust to the apparently permanent increase in the prices of imported goods.

Finally, developing countries of the ESCAP region, particularly those classified by the United Nations as 'the most seriously affected', have cause to adopt vigorous measures to restructure their balance of payments and to seek means of locating supplementary concessionary capital inflows. Unless prospects for their exports improve and/or concessionary capital flows increase substantially, many of them will fall far short of attaining the targets of the Second United Nations Development Decade and could suffer stagnant or even declining *per capita* rates of growth in real income in the second half of the decade. Such grim prospects would be particularly severe for those living in poverty in such countries.

Chapter 2.

DEVELOPMENTS IN ESCAP COUNTRIES, 1974/75

(a) *Growth rates of gross products*

As far as rates of growth in *per capita* and gross products were concerned, the years 1974 and 1975 were generally unsatisfactory ones from the viewpoint of ESCAP developing countries.[2] While 1976 may bring some relief, the situation is far below what is required or consistent with the 6.0 per cent target rate of growth in gross national product for the developing countries in the region as a whole set for the Second United Nations Development Decade. Generalizations for the region as a whole are rather pointless, but there is some use in examining the performance of two broad subgroups of countries which together comprise the bulk of the population of the developing countries of the region.

In south Asia, defined to include Afghanistan, Bangladesh, Burma, India, Nepal, Pakistan and Sri Lanka, the emerging situation is one for total concern, although there are some indications that late 1975 and 1976 will see some improvement in an otherwise starkly unsatisfactory situation. In the calendar year 1974, the aggregate growth in the combined real gross domestic products of these countries was only 2.2 per cent and, with a population growth rate of 2.4 per cent, an actual decline in average *per capita* living standards took place.[3] Two points bring out the extreme seriousness of this statistic. Firstly, in *per capita* terms, the current incomes of these countries are among the lowest in the world, ranging in 1973 from $US 70 in the case of Bangladesh to $US 150 in the case of Pakistan. In total these populations comprise nearly 75 per cent of those in the world whose *per capita* income is below $US 200. Secondly, the small decline in average *per capita* incomes conceals the fact that, for many of the poorest and most dejected, already struggling to sustain life itself, the fall in income was no doubt other than marginal as measured by the 0.2 per cent decline in average *per capita* income.

As indicated earlier, international developments were partially responsible for this bleak picture in that the world recession adversely affected export receipts and in that the world inflation and rise in oil prices reduced the purchasing power of available foreign exchange and cut back on the flow of imports essential for development efforts. More important, however, was the depressed level of agricultural output in many of the countries concerned in the 1974/75 season.

Table 4 indicates that there were exceptions in the case of individual countries. Some care is required in interpreting this table, however, because, as the foot-notes to the table make clear, the estimates given for the south Asian group of countries often refer to fiscal and not calendar year. For instance, the high rate of growth recorded for Bangladesh in 1974 was for the fiscal year ending 30 June, and the bulk of this growth was recorded in the first half of the fiscal year. Similarly, in the case of India, estimates are for the fiscal year ending 20 March. One exception in the table to the overall performance of south Asian countries was Sri Lanka which achieved a modest increase in real *per capita* income as a result of a fall in the rate of growth of population — from 1.8 per cent in 1973 to 1.6 per cent in 1974 because of emigration — and an increase in agricultural output of 5.0 per cent.

As revealed by the table, the emerging picture for 1975 is a bleak one. An exacerbation of the forces making for reduced rates of growth in national products in 1974 has led to a further deterioration in the growth prospects of south Asian countries considered as a whole, particularly in early 1975. However, there are current indications which suggest that, in India and Pakistan, recovery in the agricutural sector could lead to a modest improvement in *per capita* incomes and growth prospects for these countries in 1975/76. In 1975/76, national income in India is expected to rise by 5.5 per cent and in Pakistan gross domestic product by 7.0 per cent. In Afghanistan also it is expected that a recovery in agricultural production in 1975 and 1976 will make for *per capita* growth rates in GDP of some 3.0 per cent in each of these years. Satisfactory weather conditions, higher product prices and a more intensified use of fertilizers have ensured bumper crops of cotton, sugar beets, etc. It is also expected that industrial output will be higher by some 20 per cent in real terms.

---

[2] Unfortunately, insufficient data were available for the 1974 and 1975 period to assess adequately development in the centrally directed economies of the region. The term "ESCAP developing countries" excludes, unless otherwise stated, the centrally directed developing economies.

[3] See World Bank, *Annual Report*, 1975, table 1, p. 87.

Table. 4. SELECTED DEVELOPING COUNTRIES IN THE ESCAP REGION: GROWTH RATES OF GROSS PRODUCT AT CONSTANT PRICES 1960-1975

	GNP 1970[a] *(billion $US)*	*Annual compound rate*[b] *(per cent)*		*Changes from previous year in GDP (per cent)*			*Per capita*[c] *GNP in 1973 ($US)*	*Annual growth rate*[c] *of per capita GNP 1965-1972*
		1960-1970	*1965-1970*	*1973*	*1974*	*1975*[d]		
Afghanistan	1.5	—	—	4.0	2.3	5.3	90	0.8
Bangladesh[e]	...	—	—	8.2[c]	11.5[c]	2.0[f]	80	1.6
Burma[g]	2.2	—	—	—2.4[c]	4.5[c]	—	90	1.0
Hong Kong	3.1	—	—	12.6	0	0[h]	1,090	5.7
India[i]	52.8	3.8	4.4	0.9	3.1	2.0	120	1.4
Indonesia	12.0	3.3	4.7	8.1[c]	7.5[c]	7.5[f]	100	4.3
Iran[i]	10.8	7.9	9.2	—	41.6	15.0	570	—
Malaysia	3.2	6.3	6.9	13.3[c]	8.8	1.1	480	2.9
Nepal[j]	8.9	—	—	2.0	6.0	1.8	80	0.1
Pakistan[d]	10.6	5.4	5.5	7.4	4.6	2.6	140	1.7
Papua New Guinea[e]	0.7	—	—	8.6	12.1	—	370	7.5
Philippines	9.2	5.7	6.3	5.2[c]	2.7[c]	6.0[f]	250	2.4
Republic of Korea	8.3	9.2	12.0	16.5	8.6	7.0	370	8.5
Singapore	1.9	—	—	11.1	6.9	0.2[e]	1,490	10.3
Sri Lanka	2.1	4.5	5.1	3.5	3.4	3.4	120	2.0
Thailand	6.6	7.9	8.5	8.7[c]	3.2	6.0	240	4.2

Sources: Unless otherwise specified, national official sources or unpublished papers prepared by consultants for the use of the ESCAP secretariat.

[a] United Nations computer print-out.

[b] *Economic Survey of Asia and the Far East, 1973,* table II-1-3, p. 117. Estimates refer to compound rate of growth in GNP.

[c] Asian Development Bank, *Key Indicators of Developing Member Countries of ADB,* vol. VI, No. 2, October 1975.

[d] Estimates.

[e] Year ending 30 June.

[f] Economic Intelligence Unit, *World Outlook,* 1975. Forecast.

[g] Year ending 30 September.

[h] Based on estimate given by the Financial Secretary in his budget speech, 1975.

[i] Year ending 20 March.

[j] Year ending 15 July.

It is the expected recovery in agricultural output in south Asia in the 1975/76 season which emphasizes the precarious situation of the countries concerned in the remainder of the Second United Nations Development Decade. In a sense the recovery appears larger than it is because it follows the actual decline in output occurring in the previous season. At the same time, the international situation gives small reason for optimism as far as other growth factors are concerned. All the countries in south Asia have recently suffered from the world recession which has reduced their export prospects, from the inflation and oil price rise which has brought about a serious adverse movement in their terms of trade, and from a serious deterioration in their balance of payments situations. A reoccurrence of the natural calamities which can affect output in their agricultural sectors, if combined with a continued stagnation of export receipts and the likely shortfall in concessionary capital flows, could lead to zero or negligible rates of growth in real *per capita* incomes in these countries in the remainder of the decade. This possible disaster is taken up again when considering likely balance of payments trends and prospects below.

Because of its favoured situation as one of the major oil-producing countries, Iran has not been included in the south Asian group of countries. As might be expected, the dramatic rise in oil revenues boosted the rate of growth in gross domestic product in 1974 to an incredible 41.6 per cent. Estimates for 1975 expect a lower, but still high 15.0 per cent rate of growth.

In considering the remaining developing countries in the region for which gross product data are available, some general observations can be made although there are inevitable exceptions to these. First, economic development in these countries in 1974 was generally less impressive than in 1973 and it was the depression in the world economy and adverse shifts in the terms of trade which were primarily responsible. At the same time, many of the countries concerned were able to call upon foreign exchange reserves built up in 1973 by the primary commodity price boom and thus maintain the inflow of imports essential to development, such as raw materials, oil, fertilizers, food, semi-processed products and capital equipment. As a consequence, despite the adverse effect of the world recession on export growth and of the world inflation on their terms of trade, the countries of east Asia and the Pacific, considered as a whole, were able to maintain an average rate of growth in real gross domestic product of 6.5 per cent in 1974[4] and this despite a fall in the rate of growth of agricultural output from 10.4 per cent in 1973 to 2.6 per cent in 1974.

If anything, the impact of international factors is likely to lead to further reductions in growth rates in 1975, although there are exceptions in the case of one or two countries. Evidence to hand suggests that growth rates in gross domestic products in individual countries in 1975 (with 1974 estimates appearing in parentheses) are: Hong Kong (0), 0; Indonesia (7.5), 3.0; Malaysia (8.8), 1.1; the Philippines (2.7), 6.0; the Republic of Korea (8.6), 7.0; Singapore (6.9), 0.2; and Thailand (3.2), 6.0. The exceptions have occurred in the Philippines and Thailand where the adverse effect of the international factors listed above has been offset by solid increases in output in agriculture in 1975. While the countries under consideration could generally be less dependent on concessionary capital flows than are the countries of south Asia, they are probably more dependent, given their greater dependence on international trade, on economic growth prospects in developed industrial countries. At this juncture they must view the slow rate of recovery in these countries with some apprehension. Current forecasts suggest that the rate of growth of national output in OECD member countries in 1976 will be about 4.0 per cent, following the 2.0 per cent fall in output in 1975, and that even this modest recovery could fall in 1977.[5] Such a modest rate of recovery, which will increase output in OECD countries at the end of 1976 by only 2.0 per cent over that attained in 1974, will scarcely provide a boom in developing country exports. That the recovery might be short-lived and that it is unlikely to reduce unemployment makes it improbable that voices urging protection for domestic industries will be muted. In these circumstances, prospects for 1976 are difficult to establish and much will depend on the pace and character of international developments as well as upon what happens, the island economies of Singapore and Hong Kong excepted, in the agricultural sectors of the countries concerned.

Finally, although estimates of gross product changes are not to hand, it is evident that the developing island countries in the South Pacific have also been strongly affected by the international developments discussed above. As in the case of other primary commodity producing countries, they experienced improving terms of trade and buoyant export receipts in 1973 and early 1974. Since then, there have been strongly adverse terms of trade movements which have more than eliminated the gains registered earlier. In Western Samoa, for instance, copra prices declined by 60 per cent in 12 months, while import prices continued to rise rapidly as the result of world inflation. This strong adverse terms of trade movement has given rise to severe balance of payments difficulties.

The development performance of the three developed economies in the ESCAP region proved highly sensitive to movements in the international trading and payments system. All of them suffered from the effects of world stagflation and from the violent swings in the volume and value of world trade. The first line of table 5 indicates recent movements in their gross products.

From the viewpoint of ESCAP developing countries, as well as from that of Australia and New Zealand, the performance of the Japanese economy is an important determinant of their economic health. It was indeed symptomatic of the general economic climate that the Japanese economy's rate of growth should decline from its normal double-figure level to a negative rate of growth in 1974 and to a barely significant one in 1975. Highly dependent as Japan

Table 5. MAIN ECONOMIC INDICATORS: ESCAP DEVELOPED ECONOMIES

	Japan			*Australia*[a]			*New Zealand*[b]		
	1973	*1974*	*1975*	*1973*	*1974*	*1975*	*1973*	*1974*	*1975*
GDP	10.2[c]	—1.9[c]	0.6[c]	4.7	5.6	—1.6	4.3	6.4	2.5
Exports of goods and services .	16.9	60.4	4.4	3.9	—3.7	6.4	—1.4[d]	—5.1[d]	30.3[d]
Imports of goods and services .	46.6	71.0	—2.9	3.0	31.2	1.4	48.0[d]	28.4[d]	1.1[d]
Consumer price index . . .	16.0[e]	31.2[e]	3.1[e]	8.2	14.4	16.9	10.0	12.6	14.8

Sources: Various national official publications.

[a] Figures for GDP, exports and imports are for the March year ending.

[b] Figures for GDP, exports and imports are for the March year ending.

[c] GNP.

[d] Includes service items.

[e] Wholesale price index.

---

[4] *Ibid.*

[5] See *Economic Outlook* (Paris, OECD, December 1975).

is on the international economy, it proved especially vulnerable to the sharp rise of import prices and to the unprecedented world recession. Future progress in Japan depends intimately on the pace of recovery in the world economy. The latest forecasts prepared by several research institutions in Japan point to a growth rate of around 5.0 per cent in real GNP in 1976. Should the tentative recovery from world recession falter, however, or should insufficiently expansionary monetary and fiscal policies be adopted within Japan, the rate of growth attained could be less.

Apart from the same external factors which plagued the Japanese economy, economic growth in Australia was influenced by domestic developments which adversely affected the level of investment in the private sector. In part, this was a result of the rapid increase in wages and salaries which led to a substantial shift of income from profits to wages; in part, it was also a consequence of the very large increase in the weight of taxation during 1974 and 1975 which caused a marked transfer of resources from the private to the government sector. As a result of these developments the rate of increase in gross domestic product in Australia fell from a satisfactory level of 4.7 in 1973 and 5.6 in 1974 to a negative rate of growth of -1.6 per cent in 1975. At this juncture, a modest rate of growth in real gross domestic product of some 3.0 per cent seems likely in the fiscal year ending June 1976.

As in the case of the other two developed economies, New Zealand was affected by international developments. As a consequence, respectable rates of growth in gross national product of 4.3 and 6.4 per cent, which were secured in 1973 and 1974 respectively, were followed by a rate of growth of 2.5 per cent in 1975. The prospects for 1976 have been adversely affected by a critical balance of payments situation and economic growth could be virtually negligible.

(b) *Agricultural output*

Table 6 below indicates the effect which natural calamities can have on some of the major items of agricultural output in the ESCAP region. Rice, the staple crop in the region, expanded in output terms by nearly 10 per cent in the 1972/73 growing season, to decline by 1.3 per cent in the following year. Current indications point to a successful growing season in 1974/75, with rice output expected to increase by over 6.3 per cent. A similar pattern of instability is evident in the case of wheat and, to a lesser extent, in the case of maize. Particularly in south Asia, where the balance between domestic production and consumption of foodgrains

Table 6. PRODUCTION OF PRINCIPAL CROPS IN THE ESCAP REGION, 1971-1975[a]

Crop	*1974 (thousand metric tons)*	*Rate of change (per cent)*			
		1973/72	*1974/73*	*1975/74*	*1971-1975 average per annum*
Rice	293,362	9.68	—1.31	6.34	3.73
Wheat	86,472	7.34	—2.70	7.72	4.33
Maize	50,000	6.75	3.20	3.57	2.52
Sugar	—	7.74	9.43	4.12	3.73
Cassava	25,210	5.00	0.38	3.05	4.93
Tea	1,301	4.36	2.60	2.38	3.70
Copra	2,973	—17.11	—9.00	19.17	0.80
Palm oil	1,435	10.95	24.24	14.28	16.96
Cotton	4,317	8.73	—0.12	1.62	0.52
Natural rubber	3,109	16.63	—1.27	5.21	4.64
Jute and jute-like fibre	3,989	29.61	—12.96	—2.00	5.09

Sources: ESCAP/FAO Agriculture Division, Bangkok, 1976.
Commonwealth Secretariat, *Rice Bulletin*, vol. XXI, London, 1975.
Commonwealth Secretariat, *Grain Bulletin*, vol. XXI, London, 1975.
FAO, *Monthly Bulletin of Agricultural Economics and Statistics*, vol. 24, Rome, 1975.
FAO, *Production Yearbook 1974*, vols. 28–1 and 2, Rome, 1975.
FAO, *Trade Yearbook 1974*, vol. 28, Rome, 1975.
International Cotton Advisory Committee, *Cotton Monthly Review of the World Situation*, Washington, 1975.
International Sugar Organization, *Statistical Bulletin*, vol. 34, London, 1975.
International Tea Committee, *Monthly Statistical Summary*, vol. 30, London, 1975.
Secretariat of the International Rubber Study Group, *Rubber Statistical Bulletin*, vol. 30, London, 1975.
United Nations, *Monthly Bulletin of Statistics*, vol. XXIX, New York, 1975.

[a] 1975 figures are estimates.

can be so critical, such fluctuations in output make the difference between, on the one hand, the attainment of modest rates of growth in *per capita* incomes and, on the other, stagnating or declining levels of income, costly food imports and starvation. Especially where unanticipated shortfalls in domestic production coincide with world supply shortages and commodity price increases, the latter set of conditions will be exacerbated. This, of course, was what happened in many countries of the region in 1974. Current indicators suggest that the 1975/76 growing season is generally better for most countries of the region.

Even so, traditional food importers in the region will await with interest the outcome of the global situation. In China, despite some adverse weather conditions, the output of foodgrains expanded in 1975 over 1974, with significant increase in per hectare yield. On the other hand, in the Soviet Union, storms and abnormally cold weather have affected the early dormancy of autumn-seeded grains and the harvest there could be affected accordingly. While favourable weather conditions in Australia have led to a bumper crop of wheat, drought has affected the United States winter grain crop and the 1976 harvest could be as much as 9.0 per cent less than that of the record level attained in 1975.

Because of its economic size, the performance of India tends to dominate among Asian developing market economies. Between 1967/68 and 1970/71, Indian agricultural output grew at about 4 per cent per annum. In the following two years, production actually declined due largely to adverse weather conditions. A recovery occurred in 1973/74 with output growing at 9.1 per cent, although the level attained was only slightly in excess of the previous peak level reached in 1970/71. Other than weather, the stagnation in output from 1970/71 to 1973/74, was caused by the steep increase in price and reduced availability of fertilizers, by a deterioration in the quality of high-yielding seed varieties and by a failure to press on with urgently needed institutional reforms. Official estimates for production in the 1974/75 season are not yet available. It appears, however, that adverse weather conditions affecting the *kharif* crop of 1974 have been offset by increased foodgrain production in the *rabi* crop in 1975 and that over-all production in the 1974/75 season is about the same as in 1973/74. With some decline in other items of agricultural production, over-all agricultural production may have declined slightly in 1974/75. What is encouraging, however, is that preliminary reports for 1975/76 suggest that both the *kharif* and the *rabi* crops could register record levels as a result of good weather, extended irrigation facilities, an improved quality of seeds used and a cheaper and increased supply of fertilizers. On present indications, the over-all index of agricultural production could record an increase of over 10 per cent in 1975/76.

In Pakistan, abnormally adverse weather conditions have affected agricultural output in the last three years. In 1972/73, 1973/74 and 1974/75, value added in agriculture changed by 1.7, 1.3 and -2.0 per cent, respectively. The decline in output in 1974/75 was due to the combined effect of poor monsoons, inadequate winter rain and the failure to extend irrigation systems as planned. As a consequence, water flow in the river system fell to a record 33 per cent below the mean average for the last 30 years. Reduced availability of water affected fertilizer use which declined by some 25 per cent. Current indications suggest a recovery in agricultural output in 1975/76 based on normal river flows and an increase in irrigation facilities. To some extent, however, these expectations have been offset by delays in repairing the Tarbela Dam, by the floods of August/September 1975 and by pest damage to the cotton crop.

While Bangladesh, like India and Pakistan, recorded a poor harvest in 1974/75 and was forced into large food purchases, preliminary and as yet fragmentary evidence suggests that production of major foodgrains will increase considerably in 1975/76. Sri Lanka is another country in which an increase in agricultural output of 5 per cent appears likely after declines in output of 2.9 and 2.6 per cent respectively in the preceding years. Finally, in the land-locked countries of Nepal and Afghanistan, there is evidence of a declining growth rate in agricultural output in the former (from 12.2 per cent in 1974 to 2 per cent in 1975) and of a rise in the latter owing to a greater use of chemical fertilizers, the more remunerative price offered to farmers, and good weather conditions.

In the developing market economies of east and southeast Asia and the Pacific, agricultural output was most discouraging in 1974, increasing by only 2.6 per cent as compared with 10.4 per cent in 1973. As yet the situation in 1975 is far from clear. In Malaysia, output is expected to decline by some 5 per cent owing to a fall in the output of the traditional primary products, such as natural rubber, tin and timber. On the other hand, the Republic of Korea, Singapore and Thailand all look like achieving rates of growth in agricultural output ranging from marginally to significantly better than those achieved in 1974. In the Republic of Korea, the anticipated rate of growth in agricultural output is 5.6 per cent, in Singapore 2.2 per cent (compared with a decline in production in the last two years) and in Thailand 4.8 per cent.

Table 6 indicates that, in the region considered as a whole, there has been an encouraging improvement in the output of agricultural crops in the 1974/75 year. Of the crops considered, only sugar, palm oil and tea recorded performances less satisfactory than in the previous year, and only in the case of tea, palm oil and jute and jute products were the rates of growth below the average attained per annum from 1971 to 1975.

In the case of rice, production in 1974/75 increased by 6.34 per cent compared with a decline in output of 1.3 per cent in the preceding year and an average rate of increase per annum of 2.62 per cent between 1971 and 1975. The increase in output at this stage would appear to be primarily due to increased double cropping, the use of land flooded in previous years and a modest increase in yields. There has been a marked tendency for the price of rice to fall in 1975, in some cases by as much as 40 per cent compared with prices reached in 1974. Given higher domestic supplies and a probable increase in world production, it is probable that there will be some rebuilding of inventories. With many of the countries facing acute foreign exchange shortages, however, it is unlikely that imports of rice in value terms will exceed the level attained in recent years.

In the longer run, Governments in the developing countries of the region need to redouble their efforts to reduce the huge gap in yields observable between such countries as Japan and the Republic of Korea on the one hand and many of the developing countries of Asia on the other. The observed differences are partly the result of the more intensive use of capital but they are also partly the result of improved management and techniques. In the light of the recent world and regional shortages of rice, member Governments are paying increased attention to policies which are more consistent with agricultural development. In part these concern increased private and public expenditures in rural areas; in part, and more importantly, far-reaching institutional changes are required which affect wealth distribution, incentives, research and the organization of political, economic and social efforts in rural development, which are discussed in more detail in chapter 7 of Part II of this *Survey*.

Table 6 also shows that, in 1974/75, there has been a large increase in output of wheat of some 7.72 per cent compared with the decline in output of 2.7 per cent which took place in the preceding year. The former compares more than favourably with the average annual increase in output of 4.3 per cent between 1971 and 1975. The increase in output was partially a result of an increase in area cultivated of 2.4 per cent and a sharp increase in yield of 4.9 per cent. The latter is well above the average annual yield of 2.8 per cent secured in recent years and was attributable primarily to improved weather conditions as well as to the use of better-quality seeds, more fertilizer and improved practices. As in the case of rice, there has been a tendency for the price of wheat in the region to decline compared with the high prices recorded in 1973 and 1974. Nevertheless, and again as in the case of rice, it is difficult to envisage prices falling to those of the early 1970s. World inflation, a general increase in agricultural production costs and continued increases in consumption requirements seem certain to result in cereal prices well above those of the late 1960s and early 1970s, if not as high as those prevailing in 1973 and 1974.[6]

Maize is one of the most important exportable agricultural products of some ESCAP developing countries. Unlike rice and wheat, production of maize did not decline in 1973/74; output rose by 3.2 per cent in that year and by 3.6 per cent in the subsequent year. The increase in output in 1974/75, however, was due to a more than proportionate increase in area cultivated, the yield per hectare actually declining by 1.6 per cent. Like the prices of other cereals, the price of maize peaked in 1974, but declined slightly in early 1975. Although estimates are not yet to hand, imports by developing ESCAP countries appear to have increased in 1975. Future expansion of imports will depend to a considerable extent on the expansion of the livestock industry in these countries. Another problem concerns the poor average annual increase in yield recorded in maize production. During the period 1971-1975, the average annual increase in yield was only 0.02 per cent. This is attributable to poor farming practices and to the difficulties in adopting existing better-quality seed varieties.

Sugar production increased in 1974/75, but at only 4.1 per cent compared with 9.4 per cent in the previous year. This was partly caused by a 1.2 per cent reduction in area planted. The price of sugar nearly trebled between 1973 and 1974, only to fall sharply by some 25 per cent in the first half of 1975. No figures concerning regional exports of sugar in 1975 are yet available, but exports were buoyant in 1974 as a result of a general decline in the production elsewhere. ESCAP countries whose exports particularly benefited in 1974 were India, Indonesia and Thailand.

The region's output of cassava increased by some 3.1 per cent in 1974/75, a small decline in area planted being offset by a rise in yield which was below the average secured in recent years.

---

[6] See FAO, *Commodity Review and Outlook, 1974-1975*, Rome, 1975.

In 1974/75, the increase in the production of tea in the region was 2.4 per cent, compared with recent average annual increases of about 3.7 per cent. The increase in area planted was the largest secured in the last three years, but adverse weather conditions and severe management problems on some of the estates saw a yield increase per hectare well below that secured in recent years. In Sri Lanka, where the tea estates have recently been nationalized, the latter is a pressing problem, particularly in view of the importance of tea exports to Sri Lanka.

Output of copra, after decreasing by 9 per cent in 1973/74, increased by 19.2 per cent in 1974/75, although at this level output was still below earlier peak levels. Prices nearly doubled in 1974 but then fell in 1975 below even 1973 levels. This has had particularly serious complications for South Pacific island countries such as Western Samoa where copra is the major export crop.

Output of palm oil in the ESCAP region continues to grow at a fast rate, with the increase in output of 14.3 per cent in 1974/75 approximating the average secured in recent years. The increases in output are largely the result of increased tree plantings in the early 1960s, when rubber producers diversified their activities. Trade continues to expand rapidly, although, as in the case of other commodities, prices in 1975 have declined from the peak level achieved in 1974.

Cotton production increased modestly by 1.6 per cent in 1974/75, but, even so, at a rate more than double that of the average in recent years. Competition from synthetics continues to be a problem, although trade is expanding quite rapidly. The 1975 prices have declined slightly from the high levels attained in the previous two years.

The output of rubber in 1974/75 increased by 5.2 per cent to a record level of production for the region, although rubber prices, which had risen dramatically in 1973 and 1974 as a result of the oil crisis and world inflation, fell abruptly by nearly 30 per cent in the first half of 1975. Quantities traded by the region per annum from 1973 through 1975 remained fairly stable. It would appear that demand for natural rubber will increase as the world economy moves out of recession, particularly in view of the greatly increased cost of producing synthetic rubber now that oil prices have risen. Malaysia has commenced a vigorous replanting programme which should, in the long term, favourably affect yields and supplies, and there is evidence that other regional producers are following Malaysia's example.

In 1974/75, the regional output of jute, kenaf and allied products declined by some 2 per cent following a 13 per cent decline in the previous year. World output fell even more abruptly. In Bangladesh, the highly unfavourable price of jute compared with rice caused the area sown to decline by one third in 1974. Similar developments occurred in India where the decline in output of 28 per cent was also a result of poor weather conditions. Output was similarly affected in Thailand, Burma and Nepal. As a consequence of the fall in output, world prices have risen in 1974 and 1975, restoring to some extent the altered terms of trade between jute and the prices of food crops. There has been a recent tendency, however, for jute prices to decline again, as indicated below in table 7.

(c) *Manufacturing output*

The Second United Nations Development Decade called for a target rate of growth in manufacturing output of 8.0 per cent per annum and, as table 7 indicates, Iran, Malaysia, Pakistan, the Republic of Korea and Thailand had achieved the target before the Decade commenced. Although not included in the table, Hong Kong and Singapore had also more than attained this objective by the end of the 1960s.

Generally speaking, these countries continued to do well in the early 1970s and they were joined in their performance by Indonesia, the Philippines and Sri Lanka. Except when the international economy itself is experiencing recession conditions, these countries should continue to do well in the 1970s and should all obtain the 8.0 per cent targeted rate of growth per annum, although Sri Lanka is likely to continue to be hampered by critical foreign exchange shortages.

The conspicuous exception has been Pakistan, whose manufacturing output record in the 1970s is far below that obtained in the 1960s. In large part this may have been due to political conditions in the first half of the 1970s but it is also a consequence of a shift in emphasis to a more rural-biased, welfare-oriented development strategy, of the grave foreign exchange shortages and of the recent depressed level of international demand. Other countries which have recently been particularly adversely affected by the last two factors listed include Hong Kong, Singapore, India and Sri Lanka.

The recent world recession has affected manufacturing output in two ways. Firstly, together with the oil price rise and recent food price increases, it has brought about a severe shortage of foreign exchange, and this has indirectly hampered the growth and in some cases even reduced the level of output of manufacturing industries producing for the domestic market by denying them necessary raw materials,

Table 7. SELECTED ESCAP DEVELOPING COUNTRIES:
MANUFACTURING INDUSTRY GROWTH RATES
(in percentages)

Country	*1960-1969*[a] *(average)*	*Production*					
		1970	*1971*	*1972*	*1973*	*1974*	*1975*
India	5.9	4.9	0	7.0	1.0	—1.8	3.0
Iran	11.2	. . .	11.8	17.4	16.8	. . .	. . .
Malaysia	—	12.2	6.2	13.3	19.8	15.4	15.0
Pakistan	11.7	13.9	6.2	—0.5	9.2	6.1	3.0
Republic of Korea	17.2	11.6	16.6	16.4	35.4	29.2	17.5
Singapore	—	17.1	19.0	18.7	16.8	4.2	0.2
Sri Lanka	6.3	16.4	7.0	7.5	1.2	—1.4	. . .
Thailand	12.7	9.5	16.1	10.7	14.6	2.5	6.1

Sources: Asian Development Bank, *Key Indicators of Developing Member Countries of ADB*, October 1975, table 11, p. 14; various official national publications. For Thailand, the National Economic and Social Development Board, *National Income of Thailand, 1976.*

[a] Estimates derived from country papers prepared for the ESCAP secretariat and from *Economic Survey of Asia and the Far East, 1973*, table II-1-7, p. 121.

spare parts, semi-processed products and capital equipment. Secondly and more directly, the world recession has brought about a marked rate of reduction in the exports of countries, such as Hong Kong, Singapore and the Republic of Korea, which have given their manufacturing output a strong export bias.

One country which for all the above and other reasons has not achieved targeted rates of growth in manufacturing output is India. Because of their economic 'size', India, Pakistan and Bangladesh together dominate the over-all manufacturing performance of the developing market economies of the region. In Bangladesh, of course, the contribution made to gross domestic product by manufacturing is small, only some 7.8 per cent coming from this source in 1974, as is indicated by table 8 which sets out shares of major sectors in gross domestic product for many of the developing countries of the region. In Pakistan, the ratio rises to 16.0 per cent and in India to 22.6 per cent for the same year. In these two large countries, as in more industrialized developing economies of Asia, the rate of development of the manufacturing sector has a significant impact on the process of modernization, employment and generation of national income.

The other group of countries whose performance in manufacturing gives cause for concern because of both low rates of growth and the small contribution to gross product are the land-locked countries of Nepal, Afghanistan and Laos, the until recently war-ravaged economies of the Republic of South Viet-Nam and Cambodia and the newly emerged island countries in the South Pacific. Much greater attention needs be paid to their special problems which include those of inaccessibility, the narrow range and type of commodities produced and exported, and the need to identify areas for specialization in manufacturing, including the processing of raw materials.

While the manufacturing sectors of most countries were affected by the international developments alluded to above, there were one or two exceptions and, in other cases, some special factors which affected manufacturing output. In Iran, manufactucturing has tended to be highly protected and to cater for the domestic market and, as a consequence, it was little affected either by reduced world demand or by foreign exchange shortages in other countries. Figures for manufacturing output are not available, but there is no evidence of a decline in value added in industrial output which, excluding oil, grew by 19.5 per cent in 1974 and is expected to grow at a similar rate in 1975. Growth industries are automobiles, petrochemicals, basic metals and textiles.

In Pakistan, on the other hand, while world recession severely checked the development of the textile industry, other domestic factors, such as a decline in sugarcane production and a power shortage, largely contributed to lagging manufacturing output. Similarly, in India, growth of industrial as well as manufacturing output in 1973/74 was affected by slow growth in the agricultural sector (through the effect that this had on domestically-generated aggregate demand) as well as by critical bottlenecks in such industries as power, coal and iron and steel. Although India's industrial output in 1974/75 was far from satisfactory, coal production reached a record level, steel production was the highest for five years and there was an encouraging increase in machine tools production. So far, the first half of 1975/76 augurs well for industrial and manufacturing output, with production of coal, iron and steel, cement, fertilizers, electricity, aluminium

Table 8. SHARES OF MAJOR SECTORS IN GDP: 1965, 1970 AND 1974
(in percentages)

	Agriculture			*Manufacturing*			*Others*		
	1965	*1970*	*1974*	*1965*	*1970*	*1974*	*1965*	*1970*	*1974*
Afghanistan	52.9	49.0	...	1.6	2.3	...	45.5	48.7	...
Bangladesh	...	61.4	59.6	...	8.3	7.8	...	30.3	32.6
Burma	37.7	37.2	37.0	10.2	10.7	10.0	52.1	52.1	53.0
Cambodia	40.1	38.3	...	10.8	...	...	49.1	...	...
Fiji	...	23.6	19.9[a]	...	11.5	11.1[a]	...	64.9	69.0[a]
Hong Kong	...	2.2	1.8[b]	...	33.3	28.5[b]	...	64.5	69.7[b]
India	44.2[c]	45.1	43.2	23.6[c]	23.3	22.6	32.2[c]	31.6	34.2
Indonesia	52.4	47.4	42.9[a]	8.3	9.0	...	39.3	43.6	...
Laos	...	...	...	...	...	...	...	...	...
Malaysia	...	33.0	31.7	...	13.2	16.1	...	53.8	52.2
Nepal[d]	65.2	67.4	68.4[a]	8.0	8.9	9.6[c]	26.8	23.7	22.0[a]
Pakistan	42.1	38.9	35.6	15.9	16.0	16.0	42.0	45.1	48.4
Papua New Guinea	...	40.1	34.0[b]	...	5.3	6.3[b]	...	54.6	59.7[b]
Philippines	33.2	32.5	29.2	17.5	19.4	20.9	49.3	48.1	49.9
Republic of Korea	42.8	31.1	24.9	12.0	19.1	27.3	45.2	49.8	47.8
Republic of South Viet-Nam	29.1	38.1	34.7[b]	10.7	6.8	6.7[b]	60.2	55.1	58.6[b]
Singapore	3.3	2.5	1.7	15.3	19.3	21.0	81.4	78.2	77.3
Solomon Islands	...	59.9	60.3[b]	...	3.4[e]	1.4[b,e]	...	36.7	38.3[b]
Sri Lanka	36.7	34.9	33.1	12.4	13.6	12.6	50.9	51.5	54.3
Thailand	34.0	30.0	27.9	15.5	17.1	18.3	50.5	52.9	53.8
Tonga	...	55.7	...	...	2.2	...	...	42.1	...
Western Samoa	...	...	...	...	...	...	...	...	...

Source: Asian Development Bank, *Key Indicators of Developing Member Countries of the ADB*, vol. VI, No. 2, 1975.
[a] 1973.
[b] 1972.
[c] 1966.
[d] Manufacturing includes cottage industry.
[e] Including mining and utilities.

and sugar all in excess of production in the same period in 1974/75. Only the production of jute products and cotton textiles continues to be held back because of the world recession.

Apart from the special factors noted above which have affected manufacturing and industrial output in the region, there are some longer-term policy issues which are coming more clearly into focus. There is a growing awareness that the pattern of manufacturing and industrial output is closely connected to equity and social justice considerations. In many of the developing countries of the region this requires that industry be linked more closely with the domestic and particularly rural economies of the countries concerned and that a more labour-intensive form of manufacturing emerge which is consistent with the factor endowments and social and economic aspirations of the countries concerned. Such a strategy for manufacturing development implies that the excessive protection accorded capital-intensive industries be reduced substantially; that industries depend more on the abundant labour and other natural resources of the countries concerned; and that the pattern of manufacturing output develop consistently with more equity-based rural development strategies. Part II of this *Survey* deals with such a set of problems. Here we should note that many countries in the ESCAP region are taking steps, albeit tentative ones, in this direction. Their development plans and programmes stress the growth of and decentralization of small-scale industry and agro-based industries.

(d) *Resource mobilization and investment*

In terms of the physical resources available for development, nearly all the developing countries of the ESCAP region entered the Second United Nations Development Decade in better condition than they did the decade commencing in the 1960s. While there was concern about the role which the developed countries were called upon to play in transferring some 1 per cent of their gross national products to developing countries, there remained a cautious but justifiable optimism with regard to export expansion and the associated rise in domestic savings capacity. This early optimism seemed justified in that the early years of the Second Development Decade witnessed a significant improvement in the savings efforts of ESCAP developing countries. It was in fact concluded that if a 0.5 per cent increase in the savings ratio[7] could continue to be secured in the remaining years of the Decade, the over-all goal of a 20.0 per cent savings ratio for the region in aggregate would be realized.[8]

Unfortunately, the effects of world recession and inflation and of the marked structural shifts which they and the oil price increase brought about in the economies of many ESCAP developing countries were not foreseen early in the Decade. Table 9 brings out the importance of these structural shifts and what they mean for the developing countries of the region considered as a whole. In constructing the table, two major developing countries were omitted, but the remainder generate the bulk of developing country gross national product in the ESCAP region. The countries excluded are Iran, whose balance of payments has moved into a huge surplus and whose gross domestic savings ratio was some 45 per cent in 1973, and Bangladesh for which data are unfortunately not available. The inclusion of Iran would have grossly distorted what has been happening to the other major developing countries; the inclusion of Bangladesh would have strengthened the case adumbrated in the table as it is one of the countries most seriously affected.

---

[7] The ratio of gross domestic savings to GDP.

[8] See the *Economic Survey for Asia and the Far East, 1973*, pp. 121-123.

Two points should be noted: firstly, that the aggregate savings ratio has not fallen significantly although the tendency for it to rise in the early 1970s has been reversed; secondly, while the level of gross investment has increased slightly, it has done so at the expense of a huge increase in dependence on foreign savings, especially in relation to the situation around 1972 when the foreign savings ratio had declined to below 1 per cent.[9] As an examination of individual country situations will show, there can now be little hope of attaining the over-all 20 per cent savings ratio objective during the remainder of the Decade.

Table 9. GROSS INVESTMENT AND DOMESTIC SAVINGS, 1970 AND 1974[a], INCLUDING WEIGHTED[b] AVERAGES FOR EIGHT[c] DEVELOPING COUNTRIES

(as a percentage of GDP at current market prices)

	1970	*1974*
Gross investment	18.6	19.5
Gross domestic savings	16.6	16.2
Foreign savings	2.0	3.3

Sources: United Nations, *Monthly Bulletin of Statistics*, November 1975 and various national official publications.

[a] In the case of Indonesia, 1973 estimates were used.

[b] The weights used were proportional to each country's 1974 gross domestic product in terms of US dollars.

[c] India, Indonesia, Malaysia, Pakistan, the Philippines, the Republic of Korea, Sri Lanka and Thailand.

The position of individual countries varies significantly, as can be seen from an examination of tables 10 and 11 which deal with individual country savings and investment performances. In terms of their size and impact on the region's performance, the position of the south Asian group of countries is most critical. The crucial role of capital formation in economic development has always been recognized, and it is depressing to note that the savings ratio in India does not now compare favourably with that of 1965 or 1970 and even less favourably with that of the 17.2 per cent attained in 1972.[10] Even more in the case of Pakistan have hard-won improvements in the late 1960s and early 1970s slipped away and an extremely low level of domestic savings was recorded in 1974/75. A similar situation can be seen to have developed in Sri Lanka and, although no firm data are available, it appears that like conditions hold in Bangladesh and in the land-locked economies of Afghanistan and Nepal.

In the case of the above countries, while domestic influences and policies have contributed to poor savings performances, the major casual factors have been external ones bearing on balance of payments situations. On the one hand, export receipts have lagged due to the depressed level of international demand and the unwillingness of developed countries to abandon the protection of industries, such as textiles, whose position has been threatened by the low level of aggregate demand and by competition from developing countries. On the other hand, there has been the greatly increased demand for essential imports whose prices have been inflated by the oil and commodity price hike and the persistent inflation in developed countries.

Table 10. GROSS DOMESTIC SAVINGS

(as a percentage of GDP at current market prices)

Country	*1965*	*1970*	*1973*	*1974*
India[a]	16.2	17.0	15.6	15.1
Indonesia	...	10.6	17.5	—
Iran[b]	23.6	24.8	45.9	—
Malaysia	20.4	21.3	22.7	18.3
Pakistan[c]	11.4	12.9	6.8	6.7
Philippines	21.8	20.3	22.7	20.6
Republic of Korea	7.8	17.2	22.7	18.6
Sri Lanka	12.8	19.4	18.3	8.7
Thailand	18.9	20.0	25.8	23.1

Sources: United Nations *Monthly Bulletin of Statistics*, various issues, by deducting for each country the balance between exports of goods and services and imports of goods and services from gross domestic capital formation.

[a] Estimates for India have been derived by adding to official estimates of national savings an allowance for depreciation of 5.5 per cent.

[b] Year beginning 21 March.

[c] Year beginning 1 July.

---

[9] *Ibid.*

[10] *Ibid.*, table II-1-9, p. 122.

Table 11. GROSS INVESTMENT AS PERCENTAGE OF GDP
(at current market prices)

Country	*1960*	*1965*	*1969*	*1970*	*1971*	*1972*	*1973*	*1974*
India[a]	17.2	18.4	17.5	17.7	17.0	18.1	18.9	18.8
Indonesia	—	6.8	11.7	13.6	15.3	18.8	18.3	...
Iran	17.4	17.3	20.2	18.9	19.8	22.1	19.5	...
Malaysia[b]	11.8	14.8	13.9	16.0	18.8	20.5	20.4	22.4
Pakistan	...	18.3	15.9	15.7	14.2	13.3	12.0	18.1
Philippines	13.0	22.0	20.5	20.8	20.5	19.9	20.1	24.1
Republic of Korea	11.0	15.3	30.2	27.3	25.5	20.8	26.0	31.1
Sri Lanka	14.5	12.5	20.7	21.5	18.1	18.6	19.0	13.5
Thailand	15.7	20.2	26.3	24.9	24.2	23.0	27.4	25.2

Source: United Nations *Monthly Bulletin of Statistics,* April 1976.

[a] See foot-note [a] in table 10.

[b] As percentage for GNP for 1971-1974.

Less severely affected because of their better long-term capacity for borrowing and for generating the needed increase in export revenue are Thailand, Malaysia, the Philippines and the Republic of Korea. Even so, in all cases and for the reasons given above, their domestic savings ratios declined sharply in 1974. Finally, although not included in the table, Singapore and Hong Kong and the developing island economies of the South Pacific have been similarly affected. At this juncture it would appear that only the two oil-exporting developing countries of Iran and Indonesia have not suffered a severe check to their savings and development efforts.

As table 10 indicates, the developing countries have been reasonably successful in sustaining investment ratios, although, as pointed out above, at the expense of an increasing dependence on foreign resources. In India, Indonesia and Iran, investment as a proportion of gross domestic product has remained fairly constant; in Malaysia, Pakistan, the Philippines and the Republic of Korea it increased substantially in 1974 compared with 1973, and only in Thailand and Sri Lanka has it fallen. Although firm data are unavailable, it is difficult to see these investment ratios being sustained in 1975/76 unless export prospects brighten considerably or unless there is an increased flow of concessionary capital to the more seriously affected countries. Otherwise, in the long run, mounting debt-service commitments can be expected to thwart investment efforts.

There are many measures required to augment and to increase the mobilization of resources in ESCAP developing countries. Those which concern foreign capital flows, the stimulation of exports and the reduction of imports are dealt with in the next section, but those domestic policies which have been adopted or which need to be adopted to stimulate an increased flow of domestic resources are examined here. In the private sector, there is an urgent need for institutional reforms, particularly in rural areas, which will improve facilities offered for the mobilization of savings. In some cases, such reform needs to be accompanied by the adoption of realistic rates of interest, given inflation and interest rates prevailing in unofficial money markets. Of particular importance, if private savings are to be encouraged, is the need to bring inflation under control. It seems certain that private savings in a number of ESCAP developing countries, including India in particular, have been discouraged by rapidly rising prices that erode the value of the savings concerned.

Developing countries in the ESCAP region appear to have relied mainly on increases in private household savings rather than public savings because of the well-known difficulties encountered in raising revenue in developing countries and because of the ever-pressing demands made on Governments to expand current expenditure. As far as revenue collection is concerned, there is a great need for centralizing administration in order to avoid tax evasion, for changes in the tax structure to simplify administration, and for the urgent introduction of taxes on land and on the better types of residential accommodation. The means to effect such reforms are probably available, but there is a notable lack of action on the part of member Governments to tax those who are often their most ardent supporters.

Another development which could increase revenue yield is the granting of tax-raising powers to local authorities, together with decision-making power over the spending of the resulting revenue. Taxes are more willingly paid when benefits can be perceived locally and when there is some form of local participation in local governing authorities.

Finally, there is considerable need for countries in the region to seek to improve the efficiency of their public enterprises. These often receive subsidies in the form of cheap credit, are able to price as monopolists and yet are notoriously wasteful of public revenue. In India, Pakistan, the Republic of Korea and Sri Lanka, attempts have been made to set these enterprises on a more economic footing. It remains to be seen, however, what effect such policy measures may have.

Foreign savings

Where investment in the region's developing countries is not financed by domestic savings, it must be provided for by foreign grants or by concessionary or commercial capital flows. In recognition of the importance of foreign savings or foreign assistance, as the above three components are called, the International Development Strategy for the Second United Nations Development Decade called for a net transfer of funds from developed to developing countries equal to 1 per cent of the gross national products of the former. Of this 1 per cent, the flow of concessionary capital, i.e. capital provided in the form of grants or at concessionary rates, was to comprise 70 per cent.

The flow of foreign assistance as a share of GNP from DAC countries[11] was 0.78 per cent in 1970 and 0.81 per cent in 1971, and the provisional figure for 1974 stands at 0.78 per cent. Of this flow in 1974, the official development assistance (ODA) comprised 0.33 per cent compared with 0.34 per cent in 1970.

During the same time period there have not been any pronounced improvements in the terms on which official development assistance has been made available. The weighted average maturity period of ODA loans increased slightly from 30.2 years in 1970 to 32.6 years in 1973 and the weighted average grace period increased from 7.3 to 8.6 years.[12] In a period of rapidly escalating interest rates, however, the weighted average interest rate of ODA loans has fallen from 2.8 to 2.5 per cent. Over-all, the grant element of total ODA commitments increased slightly from 84.1 per cent in 1970 to 86.8 per cent in 1973.

Unfortunately, data on a regional basis are not available for 1974. In 1973, however, there were some substantial differences between developments in the countries comprising east Asia and south Asia, and, as table 12 indicates, the differences are particularly marked if the experience of these two groups of countries in 1973 is contrasted with what occurred in 1972. In 1972 in south Asia, in which average country *per capita* incomes are all below the $US 200 mark, the net transfer of resources, allowing for debt-

Table 12. EXTERNAL RESOURCE FLOWS AND SERVICE PAYMENTS ON EXTERNAL PUBLIC DEBT, BY REGION, 1967-1973

(in million US dollars)

Region year	*Disbursements*			*Debt service*			*Net flow*[b]	*Net transfer*[c]
	Loans	*Grants and grant-like*[a]	*Total*	*Amortization*	*Interest*	*Total*		
East Asia[d]								
1967	782.1	859.0	1,641.1	209.7	56.5	266.2	1,431.5	1,374.9
1968	917.4	885.3	1,802.8	212.5	81.6	294.1	1,590.3	1,508.7
1969	1,302.5	855.7	2,158.2	282.9	114.9	397.8	1,875.3	1,760.4
1970	1,240.5	818.8	2,059.3	450.2	175.1	625.3	1,609.1	1,434.0
1971	1,428.1	806.2	2,234.3	499.8	235.5	735.3	1,734.5	1,499.0
1972	2,303.3	907.6	3,210.8	556.5	289.4	845.8	2,654.4	2,365.0
1973	2,122.8	771.7	2,894.5	776.0	361.4	1,137.4	2,118.5	1,757.1
South Asia								
1967	1,741.1	786.4	2,527.5	379.6	225.8	605.4	2,147.9	1,922.1
1968	1,714.0	532.8	2,246.8	396.6	238.0	634.6	1,850.2	1,612.2
1969	1,576.5	377.9	1,954.4	474.3	274.7	749.0	1,480.1	1,205.4
1970	1,471.4	371.9	1,843.3	480.1	291.8	771.8	1,363.2	1,071.5
1971	1,783.1	494.1	2,277.2	485.1	302.4	787.5	1,792.0	1,489.7
1972	1,328.0	562.5	1,890.4	577.9	349.5	927.4	1,312.5	963.0
1973	1,939.3	606.4	2,545.7	581.0	357.7	938.7	1,964.7	1,607.0

Source: World Bank, *Annual Report,* 1975.

Note: Countries included are: *East Asia:* Fiji, Indonesia, Malaysia, Philippines, Republic of Korea, Republic of South Viet-Nam, Singapore and Thailand. *South Asia:* Afghanistan, Bangladesh, Burma, India, Pakistan and Sri Lanka. Items may not add to totals due to rounding.

[a] Grants consist of grant and grant-like contributions by DAC countries and grants by multilateral agencies as compiled by OECD, as well as disbursements by the Inter-American Development Bank (IDB) on loans repayable in the recipients' currencies.

[b] Disbursements on loans, grants, and grant-like loans minus amortization on loans.

[c] Net flow minus interest on loans.

[d] Does not include publicly-guaranteed private debt of the Philippines.

---

[11] The following countries are the members of the OECD, Development Assistance Committee (DAC): Australia, Austria, Belgium, Canada, Denmark, Finland, France, Federal Republic of Germany, Italy, Japan, Netherlands, New Zealand, Norway, Sweden, Switzerland, United Kingdom and United States.

[12] OECD, *Development Co-operation, 1974 Review,* Paris 1974.

servicing commitments, actually declined in nominal terms by well over 30 per cent and in real terms, allowing for inflation, by somewhere around 40 per cent. In east Asia, on the other hand, the net flow of resources increased in nominal terms by over 50 per cent. The flow of concessionary capital increased in both groups of countries, but in east Asia the flow of private capital increased markedly while it fell abruptly in south Asia. A strongly contrasting situation developed in 1973, with the net transfer of external resources to east Asia declining by over 25 per cent and those to south Asia increasing by well over 70 per cent.

Set against the global figures mentioned earlier and the disturbing trends in 1972, when the net transfer of resources to the poorest group of countries in the region actually fell abruptly in real terms, the reversal of trends which occurred in 1973 was most welcome. Yet there can be no cause for complacency. The failure of the developed countries to attain the targeted 1.0 and 0.7 per cent objectives with regard to foreign assistance flows and the ODA component of them is bad enough in itself. However, when the balance of payments crises which now confront the countries of south Asia and the grossly iniquitous disbursement of aid on a *per capita* basis between the poor and the better-off developing countries are taken into account, the foreign assistance problem can be seen as critical as far as development prospects in the region are concerned.

While the average terms of loan commitments and the grant element of loans is much more favourable to the poorer countries of south Asia, the amounts of foreign assistance flows *per capita* provide a disturbing contrast, especially viewed in the light of the severe balance of payments difficulties faced by these countries. The data in table 13 indicate that, from the viewpoint of the grace period of loans, the maturity of the loans, the rate of interest charged and the grant element contained in loan commitments, the countries of south Asia are much more favourably treated than those of east Asia. In terms of foreign assistance flows *per capita,* however, the countries of south Asia are much more unfavourably treated. For example, despite their much larger populations, the grant component of total loans made to south Asian countries was only $US 606 million, compared with $US 772 million in the case of east Asian countries. Table 14 below brings out even more clearly the *per capita* situation as far as total foreign assistance flows are concerned. The net flow of resources *per capita* to developing ESCAP countries in 1974 ranged from $US 1.6 and $US 1.7 in the case of Afghanistan and India to $US 127.5 in the case of Papua New Guinea. Significantly, those countries receiving less than $US 6.6 *per capita* included all of the countries of south Asia. By contrast, only Malaysia and Thailand of the remaining countries in the region received less than $US 6.6.

Table 13. AVERAGE TERMS OF LOAN COMMITMENTS AND GRANT ELEMENT OF LOANS AND GRANTS, BY REGION, 1967-1973

(amounts in million US dollars)

Region year	*Loan commitments*					*Grants*[b] *(amount)*	*Grant element of loans and grants*[a] *(%)*	*Amount of loan used for terms calculation*[c]
	Amount	*Maturity (years)*	*Grace (years)*	*Interest (%)*	*Grant*[a] *element (%)*			
East Asia[d]								
1967	1,101.6	14.4	3.9	4.4	33	859.0	62	1,101.6
1968	1,284.3	19.7	5.5	3.6	44	885.3	67	1,284.1
1969	1,766.8	20.2	5.4	4.4	39	855.7	59	1,736.4
1970	1,712.0	21.8	5.6	4.7	38	818.8	58	1,712.0
1971	2,267.1	21.4	5.9	4.5	39	806.2	55	2,267.1
1972	3,227.5	20.3	5.7	4.9	36	907.6	50	3,227.5
1973	3,112.0	23.2	6.1	5.1	36	771.7	49	3,112.0
South Asia								
1967	1,617.4	26.2	6.5	2.3	59	786.4	73	1,497.7
1968	1,870.6	29.6	7.2	2.8	58	532.8	68	1,746.0
1969	1,604.8	30.4	7.3	2.6	60	377.9	69	1,415.6
1970	2,087.4	33.0	9.8	2.3	65	371.9	71	1,931.1
1971	1,556.9	34.3	7.9	2.3	66	494.1	73	1,513.0
1972	1,866.5	33.3	7.9	1.8	69	562.5	77	1,687.5
1973	2,751.1	31.8	7.3	2.2	64	606.4	71	2,575.0

Source: World Bank, *Annual Report,* 1975.

[a] The grant element is the face value of loan commitments less the discounted present value of the future flow of repayments of principal and interest, using the customary rate of 10 per cent and expressed as a percentage of face value.

[b] Data for grants are taken from OECD (DAC) and IDB sources. Included are grant-like flows (loans repayable in local currencies), bilateral grants, and United Nations agency grants. Figures for grants are on a disbursed basis, while figures for loans are on a commitment basis. The grant element of a grant is 100 per cent.

[c] This column shows the amount of loans for which repayment terms are known.

[d] Does not include publicly-guaranteed private debt of the Philippines.

Table 14. TOTAL RECORDED NET FLOW OF RESOURCES TO SELECTED ESCAP DEVELOPING COUNTRIES FROM DAC COUNTRIES AND MULTILATERAL AGENCIES, 1970-1974

(in million US dollars)

DMC	*1970*	*1971*	*1972*	*1973*	*1974*[a]	*Per capita 1974 ($US)*
Afghanistan	18.7	46.4	53.8	43.9	30.8	1.6
Bangladesh	...	15.4	207.2	436.8	485.9	6.5
Burma	22.4	48.4	46.0	82.7	62.0	2.0
Cambodia	17.6	40.4	65.8	141.6	307.0	38.9
Fiji	6.9	11.1	6.8	23.4	34.6	61.8
Gilbert and Ellice Islands	2.2	2.5	4.1	6.0	5.5	91.7
Hong Kong	50.0	96.5	61.7	300.0	62.6	14.7
India	806.8	985.5	582.0	686.5	1,009.0	1.7
Indonesia	506.4	574.6	578.1	1,220.0	1,116.0	8.6
Laos	69.2	72.3	66.7	70.2	62.2	19.1
Malaysia	42.8	71.9	92.5	216.6	216.6	18.6
Nepal	24.3	23.4	30.0	34.3	31.4	2.6
Pakistan	467.2	456.0	261.6	188.7	412.3	6.0
Papua New Guinea	165.3	163.3	210.9	335.2	337.8	127.5
Philippines	142.0	135.5	191.1	267.8	289.4	7.0
Republic of Korea	342.1	428.5	464.5	761.9	563.4	16.8
Republic of South Viet-Nam	436.3	462.2	572.2	436.6	672.5	33.0
Singapore	56.1	51.9	38.8	235.0	132.8	59.8
Solomon Islands	8.2	7.0	12.5	12.3	12.4	67.4
Sri Lanka	55.7	55.6	63.3	63.3	88.5	6.6
Thailand	117.8	76.1	39.7	208.4	139.4	3.4
Tonga	1.4	0.7	1.0	1.3	2.4	24.7
Western Samoa	1.5	2.0	2.2	3.4	2.1	13.5
Total	3,360.9	3,827.2	3,652.5	5,775.9	6,076.6	5.6

Sources: OECD, *Development Co-operation, 1974 Review* and other sources.

[a] Provisional.

(e) *Trade and payments*

(i) *Trade developments*

A variety of developments in the international economy have markedly affected the stability and growth prospects of ESCAP developing countries. International trade has been particularly affected, in both terms of price and volume changes. Those influences of major importance which have been already mentioned above include the effects on the terms of trade for developing countries of the commodity price boom, the more recent world recession, and the impact of world inflation and the oil price rise. In combination, these various events have not only eliminated but reversed the favourable balance of payments situations that developing countries found themselves in at the conclusion of the 1973 commodity price boom. The resulting and prospective shortages of foreign exchange suggest that, unless substantial increases in concessionary capital flows are forthcoming, many developing countries of the region will be hard-pressed to maintain, let alone increase real *per capita* incomes by 1980.

Table 15 and 16 set out data concerning recent annual rates of growth in the exports and imports of ESCAP developing countries.

In value terms, world exports increased by 47.0 per cent in 1974 to $US 764 billion. This followed a similar sharp increase of 38 per cent to $US 517 billion in the preceding year. Both developed and developing market economies participated in this rapid expansion. The exports of the former rose by 39 per cent in 1974 as compared with 37 per cent in 1973, whereas the latter achieved an unprecedented increase in trade of 104 per cent in 1974 compared with 44 per cent a year earlier. Developing country trade was dominated by the sharp rise in the prices of petroleum and other commodities. The share of the developing market economies in world exports increased for the second consecutive year from 20 per cent in 1972 to 21 per cent in 1973 and then to 29 per cent in 1974.

Among the developing countries, the Middle East group, with oil dominating, increased exports by 42 per cent in 1973 and 207 per cent in 1974. Of the remaining developing countries, "other Asia", corresponding roughly with ESCAP developing countries (excluding Iran),[13] secured export increases of 55 per cent in 1973 and 69 per cent in 1974. This compares well with the increase in world exports noted above and with increases achieved by western hemisphere and African developing countries.

---

[13] See World Bank, *Annual Report*, 1975, table 2, pp. 88-89.

World imports in 1973 and 1974 expanded in a similar manner. Imports rose by 37.0 per cent in 1973 and by 45 per cent in 1974 to a level of $US 760 billion. Once again the share of developing countries rose perceptibly from 18 per cent of world imports in 1973 to 20 per cent in 1974. In percentage terms, their imports in 1974 rose by 57 per cent.

Table 15. MERCHANDISE EXPORTS F.O.B., 1971-1975
(percentage rate of change)

	Per capita 1974 ($US)	*1971*	*1972*	*1973*	*1974*	*1975*[a]
Afghanistan[b]	11.4	16.3	22.0	17.2	49.7	—
Bangladesh	4.6	—	—	38.2	—3.1	—
Burma	6.5	16.8	—4.0	9.2	49.6	—
Fiji	275.0	—	9.7	7.6	81.2	—
Gilbert and Ellice Islands	583.3	25.0	—20.0	112.5	105.9	—
Hong Kong	1,402.1	14.4	19.9	47.4	17.3	—13.0[c]
India	6.7	0.4	20.6	19.0	34.6	14.3
Indonesia	58.2	7.4	42.6	80.6	131.3	—7.6
Malaysia	361.6	—2.7	5.0	74.0	41.6	—12.7
Pakistan	16.3	—7.9	2.0	41.1	16.2	10.9
Papua New Guinea	264.2	16.5	83.3	134.0	35.7	—
Philippines	64.4	5.6	—1.5	61.8	49.4	—12.0
Republic of Korea	133.3	27.9	52.1	98.6	38.3	—9.2[c]
Singapore	2,617.1	12.9	24.7	67.3	58.6	—17.5
Solomon Islands	141.3	25.0	10.0	27.3	85.9	—
Sri Lanka	38.1	—3.5	—1.8	20.4	33.6	8.1
Thailand	60.2	17.0	30.1	44.7	57.9	—
Western Samoa	81.2	20.0	—16.7	40.0	85.7	—73.8

Sources: IMF, *International Financial Statistics*, October 1975 and United Nations, *Monthly Bulletin of Statistics*, December 1975.

[a] Estimates derived from consultants' papers prepared for the ESCAP secretariat.

[b] Data are for fiscal year.

[c] First six months of 1975 compared with first six months of 1974.

Table 16. MERCHANDISE IMPORTS C.I.F., 1971-1975
(percentage rate of change)

	Per capita 1974 ($US)	*1971*	*1972*	*1973*	*1974*	*1975*[a]
Afghanistan[b]	7.4[c]	23.7	2.8	—6.9	—	29.4[d]
Bangladesh	14.6	—	—	59.3	25.3	—
Burma	4.1	9.0	—21.3	—20.3	17.0	—
Fiji	483.9	24.0	23.3	39.6	22.1	—
Gilbert and Ellice Islands	300.0	50.0	16.7	28.6	100.0	—
Hong Kong	1,592.5	16.7	14.1	46.7	19.3	—10.7[d]
India	8.6	13.9	—7.4	43.2	57.1	22.2
Indonesia	30.1	10.1	41.6	74.8	40.8	—
Malaysia	355.1	1.5	14.2	53.0	65.9	—5.5
Pakistan	25.4	—20.3	—27.3	46.8	77.1	6.1
Papua New Guinea	84.9	17.0	—7.6	5.3	46.3	—
Philippines	82.9	9.9	2.7	29.8	93.8	14.0
Republic of Korea	204.5	20.7	5.3	68.1	61.4	17.2[d]
Singapore	3,774.3	14.9	20.0	51.5	63.0	—6.8
Solomon Islands	130.4	18.2	9.7	21.4	41.2	—
Sri Lanka	50.5	—13.4	3.6	21.6	63.4	20.6
Thailand	75.3	—0.5	15.4	38.1	50.8	—
Western Samoa	158.7	—1.8	35.7	0.1	18.0	32.2

Sources: As for table 15.

[a] Estimates derived from consultants' papers prepared for the ESCAP secretariat.

[b] Data are for fiscal year.

[c] 1973 figures.

[d] First six months of 1975 compared with first six months of 1974.

Trade in the ESCAP region needs be reviewed in the light of the global situation set out above. In 1974, the value of exports for all ESCAP countries increased by 62 per cent, from $US 83 billion to $US 134 billion. While both developed and developing countries contributed to this unprecedented upsurge, it was the developing ESCAP countries which were the major contributors of the two groups, almost doubling their export earnings from $US 34 billion to $US 65 billion. The developed ESCAP countries increased the value of their exports by 40 per cent or from $US 50 billion to $US 69 billion. The leading contributors to the increase in the developing ESCAP countries were the two major petroleum exporters in the region: Indonesia's exports rose sharply by 131 per cent and Iran's exports soared by 266 per cent. In absolute terms, these two countries' increased exports in 1974 over 1973 together contributed $US 22,676 million of the total ESCAP regional gain of $US 31,324 million.

Regional imports increased substantially from $US 81 billion in 1973 to $US 129 billion in 1974, an increase of 59.3 per cent against 52.7 per cent for the preceding year.

From the above it is evident that the foreign trade sector of ESCAP countries in 1973 and 1974 achieved an extraordinarily high rate of growth by comparison with the average rates of growth experienced during the decade from 1965 to 1974. During the decade, exports had an average growth rate of 21.5 per cent per annum against the 42.1 per cent and 61.7 per cent rates for 1973 and 1974 respectively. The corresponding figures on the imports side give an average rate of growth during the decade of 19.8 per cent per annum against the 52.7 per cent and 59.3 per cent rates for 1973 and 1974 respectively.

As a result of these unprecedentedly high rates of expansion, the regional balance of trade deficit more than doubled its 1973 level of $US 1,820 million to $US 4,855 million in 1974. This was partly a result of the dramatic reversal from a position of substantive surplus of $US 1,622 million in 1973 (from a sharp fall from $US 7,137 million in 1972) to a deficit of $US 8,085 million in the developed ESCAP countries. All the three developed ESCAP countries had a share in the generation of this trade deficit: Australia (–$293 million), Japan (–$6,575 million) and New Zealand (–$1,217 million). In the case of the developing ESCAP countries, a trade deficit position in 1972 of $US 1,562 million became a small positive balance of trade of $US 198 million in 1973. This was followed in 1974 by a huge $US 12,940 million trade surplus attributable mainly to the petroleum-exporting countries. The combined exports of Indonesia and Iran rose from $US 2,553 million in 1972 to $US 4,433 million in 1973 and to $US 22,999 million in 1974. These dramatic changes in the regional trade balance, however, fail to reveal serious, and in some cases, critical developments for certain ESCAP developing countries. If the surplus situations of Indonesia and Iran are deducted, the remaining developing ESCAP countries shifted from a balance of trade deficit in 1972 of $US 4,115 million to a deficit of $US 4,433 million in 1973, and to a huge deficit of $US 10,059 million in 1974. There is every reason to believe that this will increase further in 1975.

Tables 15 and 16 provides some evidence concerning developments in 1975. As indicated in our earlier review of the global situation, it is apparent that the balance of trade position of non-oil-producing developing countries in 1975 will deteriorate considerably from an already quite unsatisfactory 1974 situation.[14] At this juncture, trends in ESCAP developing country exports and imports are following the expected global trend. In those countries for which some data are available, exports appear either to have increased more slowly than imports (India, Sri Lanka); or to have fallen to a greater extent than imports (Hong Kong, Malaysia, Singapore); or to have declined while import demand has increased (the Republic of Korea, the Philippines, Indonesia and Western Samoa). Only in Pakistan is there an evident tendency for the balance of trade position to strengthen in 1975 with imports expected to grow at 6.1 per cent and exports at 10.9 per cent.

From the fragmentary 1975 data available, it is evident that the effects of the world recession have been an abrupt reversal of the buoyant 1974 situation. Export growth in volume terms for the region as a whole seems to be negative and the rate of expansion in value terms not impressive. The conclusion holds *a fortiori* for ESCAP non-oil-producing developing countries. On the imports side, the rate of growth in imports is likely to have exceeded that in exports and thereby to have exacerbated balance of trade positions; and the much reduced rate of growth in imports is already having strongly adverse effects on growth rates in many of the non-oil-producing developing countries of the region.

The effect that the increase in the price of essential imports has had on expenditure can be clearly seen in table 17. In the case of the developing countries in balance of payments deficit, expenditure on oil in United States dollars increased by some 300 per cent, on foodgrains by some 25 per cent and on fertilizers by some 80 per cent.

---

[14] From a deficit situation of $US 9 billion in 1973 and $US 28 billion in 1974, the IMF predicts a worsening of the deficit position of world non-oil-producing developing countries to $US 35 billion in 1975.

The exports and imports of ESCAP developed economies were markedly influenced by world economic conditions. As table 5 indicates, Japan's exports and imports of goods and services increased by some 60 per cent and 71.0 per cent respectively in 1974 as a consequence of the dramatic rise in the unit value index of goods traded in that year. In 1975, however, exports grew in value terms by only 4.4 per cent because of the fall in the level of world economic demand. At the same time, the value of imports actually declined as a consequence of the low level of aggregate demand within the Japanese economy and because of the tendency for commodity prices to decline (see table 18 below). Among the countries most severely affected by this decline in Japanese imports were those in Southeast Asia: the value of imports into Japan from these countries declined through the latter half of 1974 and remained weak in the first half of 1975. As of mid-1975 they were some 25 per cent lower in value terms than they were one year earlier. Trade prospects for Japan in 1976 are for more vigorous rates of growth in both exports and imports as world and Japanese economic conditions improve. Forecasts of export growth in fiscal 1976 are consistently around 15.0 per cent and in the case of imports range from 9.3 per cent to 12.5 per cent.[15]

In Australia merchandise imports increased by 32 per cent between 1973/74 and 1974/75 with the volume of imports rising by only 0.6 per cent. On the export side, there was a value increase of 26.0 per cent in the same time period with the volume of exports increasing by 5.4 per cent.

In New Zealand commodity exports after increasing by some 28 per cent in 1972/73, fell by 1.4 per cent in 1973/74 and by a further 5.1 per cent in 1974/75. The decline in export values is attributable both to falling primary commodity prices and to a decline in the volume of such major exports as meat and wool. The value of imports, on the other hand, rose sharply in 1973/74 and 1974/75 as a consequence both of rising prices and volume increases.

Table 17. IMPORTS OF SELECTED COMMODITIES BY SELECTED DEVELOPING COUNTRIES IN THE ESCAP REGION: 1973-1974

(in million US dollars)

	Oil		*Foodgrains*		*Fertilizers*	
	1973	*1974*	*1973*	*1974*	*1973*	*1974*
Deficit developing countries[a]						
Afghanistan	10.6	9.1	21.2	8.6	6.3	18.0
Bangladesh[b]	22.9	62.2	174.4	195.8	20.9	52.7
Cambodia	26.0	51.0	132.0	269.0	0.5	1.3
Fiji	19.3	43.1	4.4	6.9	2.8	2.6
Hong Kong	148.9	419.1	177.8	220.5	1.4	1.6
India[b]	730.1	1,481.0	616.5	636.6	294.6	489.8
Laos	10.6	7.9	10.7	14.6	0.1	0.1
Nepal	9.0	16.8	—	—	0.5	0.5
Pakistan	68.1	157.1	121.9	133.3	26.3	36.5
Philippines	187.6	653.4	111.8	154.9	14.6	83.7
Republic of Korea	296.2	1,020.3	381.9	517.2	...	...
Republic of South Viet-Nam	76.0	132.0	140.7	221.7	36.3	61.9
Singapore	659.8	2,007.2	93.3	159.8	32.2	62.6
Sri Lanka	44.4	142.8	121.8	261.1	26.5	35.7
Thailand	228.6	694.2	11.6	22.1	55.4	83.9
Tonga	1.0	1.0	0.6	0.7	—	—
Western Samoa	1.0	3.5	1.5	1.8	—	—
Subtotal	2,540.1	6,901.7	2,122.1	2,824.6	518.4	930.9
Surplus developing countries[a]						
Burma	...	...	...	0.9[c]	1.3	2.0[c]
Gilbert and Ellice Islands	0.8	1.4	0.7	2.6	—	—
Indonesia	44.0	183.0	408.1	390.2	63.3	227.2
Malaysia	162.1	395.9	146.6	239.9	27.4	64.4
Papua New Guinea	15.9	26.6	0.1	0.1	1.0	1.4
Solomon Islands	1.3	3.2	1.0	1.0	—	—
Subtotal	224.1	610.1	556.5	634.7	93.0	295.0
Total	2,764.2	7,511.8	2,678.6	3,459.3	611.4	1,225.9

Source: Asian Development Bank, *Key Indicators of Developing Member Countries of the ADB*, vol. VI, No. 2, 1975, table 19.

[a] Classification based on 1974 data.

[b] Data are for fiscal year, ending 30 June for Bangladesh and 31 March for India.

[c] Six months' data.

---

[15] Daiwa Securities Co. and Japan Economic Research Centre, June 1975 estimates.

In 1973, the trade of the Asian socialist economies (ASE)[16] also followed the buoyant trend of world trade. ASE exports rose by 53 per cent, from $US 3,210 million in 1972 to $US 4,920 million in 1973. Substantial gains were registered with Japan where ASE exports rose from $US 510 million to $US 1,000 million, as well as with the developing ESCAP countries where ASE exports increased from $US 560 million to $US 1,540 million. As a result, the share of ASE exports to Japan increased from 15.9 per cent in 1972 to 20.3 per cent in 1973 and that to developing ESCAP countries from 29.9 per cent to 31.3 per cent.

ASE imports from the world rose even faster than the high rate of expansion achieved in their exports, registering a 64 per cent gain from $US 3,430 million in 1972 to $US 5,640 million in 1973. Among the developed countries, imports from the United States recorded the most impressive gain, from $US 64 million in 1972 to $US 690 million in 1973. Developing ESCAP countries also improved their exports to ASE from $US 115 million in 1972 to $US 270 million in 1973. Nevertheless, the ASE share in ESCAP developing country imports remains low, increasing only from 3.4 to 4.8 per cent. ASE imports from the European socialist economies increased slightly in absolute terms from $US 1,270 million to $US 1,550 million, but as a share of their total imports, imports from European socialist economies dropped sharply from 37 per cent to 27 per cent.

While the over-all volume of trade rose steeply, the composition of exports and imports did not show much variation.

China, by far the most important member of ASE, was active in the international trade scene. In 1974, it was estimated that China's exports to the rest of the world rose by 27.6 per cent over 1973 levels to $US 6,247.5 million and that its imports increased by 51.1 per cent over 1973 levels to $US 7,518 million, with a resulting trade deficit of $US 1,271 million. Japan, Hong Kong, western Europe and North America were China's major trading partners.

(ii) *The terms of trade*

As mentioned earlier, it has been price rather than volume movements which have dominated the trade of ESCAP developing countries. In volume terms, the world recession has held back the expansion of trade, but values have increased dramatically because of the 1973-1974 commodity price boom, the steep rise in oil prices in 1973/74, and the persistent and in recent times unprecedented level of inflation in the developed industrial economies.

The main problem associated with the inflated unit values of world trade is that it has had markedly different effects on different groups of countries. Tables 18 and 19 set out some of the data concern-

---

[16] Comprising China, the Democratic People's Republic of Korea, the Democratic Republic of Viet-Nam and Mongolia.

Table 18. EXPORT PRICES OF SELECTED PRIMARY COMMODITIES, 1971-1975

Commodity	*Unit*	*Price (1967-1969 average)*	*Price indices (1967 – 1969 = 100)*										
							1 9 7 5						
			1971	*1972*	*1973*	*1974*	*Jan.*	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*Annual forecast*
Food													
Wheat . . .	metric ton	$ 66.70	96	107	221	313	313	284	284	283	247	237	262
Rice	metric ton	$198.10	66	76	177	274	201	204	200	202	196	175	212
Maize . . .	metric ton	$ 50.90	115	110	192	260	259	237	236	235	225	234	251
Sugar . . .	lb	4.85¢	124	155	179	514	790	701	544	494	359	266	454
Tea	lb	49.70¢	96	96	97	128	140	141	140	130	122	128	131
Copra . . .	metric ton	$212.70	89	66	166	311	174	149	140	136	114	106	155
Palm oil . . .	metric ton	$191.20	137	114	197	350	308	260	246	236	208	171	267
Non-food													
Cotton . . .	lb	30.10¢	118	125	207	220	159	159	164	175	184	186	186
Jute	metric ton	$282.30	101	106	102	127	175	178	180	176	165	145	156
Rubber . . .	lb	22.00¢	82	83	162	179	131	136	133	133	134	133	150
Logs	cubic metre	$ 38.20	101	126	245	223	189	199	203	203	212	216	204
Metals and minerals													
Copper . . .	lb	58.10¢	84	84	139	161	94	99	105	104	98	92	105
Tin	lb	$ 1.495	106	114	146	249	233	229	224	216	209	210	254
Lead	lb	11.50¢	100	119	170	234	212	214	214	190	166	139	217
Petroleum . .	bbl	$ 1.30	127	146	208	751	805	805	805	805	805	805	885

Sources: *World Economic Indicators*, 13 May and 28 August 1975.

Notes: *Wheat:* Canadian No. 1 Western Red Spring (CWRS), in store Thunder Bay; *Rice:* Thai white, 5% brokens, f.o.b. Bangkok; *Maize:* US No. 2 yellow, f.o.b. Gulf Ports; *Sugar:* Up to and including 1974, weighted average of U.S. Preferential, Commonwealth Sugar Agreement and ISA Daily price — f.o.b. and stowed Caribbean Ports, beginning 1975, ISA daily prices; *Tea:* Average all teas, London Auctions; *Copra:* Philippines, bulk, c.i.f. European Ports; *Palm oil:* Malayan 5% c.i.f. European Ports; *Cotton:* Mexican, St. Midding 1 1/16", c.i.f. North Europe; *Jute:* Bangladesh White D, f.o.b. Chittagong-Chalna; *Rubber:* RSS 1 spot N.Y.; *Logs:* Hardwood (Niangon) f.o.b. Ivory Coast; *Copper:* LME settlement price; *Tin:* LME settlement price; *Lead:* LME settlement price; *Petroleum:* Saudi Arabian light crude oil, 34°, average realized price, f.o.b. Ras Tanura.

Table 19. TERMS OF TRADE,[a] 1965-1975

(1970 = 100)

DMC	*1965*	*1966*	*1967*	*1968*	*1969*	*1970*	*1971*	*1972*	*1973*	*1974*	*1975*	
											(a)	*(b)*
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...
Bangladesh[b]	96.4	88.1	126.0	103.4	118.1	100.0	95.7	...	100.0	57.0	...	...
Burma[b]	109.2	118.3	116.9	121.8	133.7	100.0	85.7	81.3	83.8	116.5	...	...
Fiji[c]	102.4	105.0	88.8	90.8	87.7	100.0	92.8	100.0	95.9	132.0	...	...
Hong Kong	...	...	...	95.2	96.2	100.0	103.8	106.7	105.7	101.9	99.0	...
India	...	...	...	...	99.3	100.0	103.4	110.3	100.9	78.5	...	...
Laos	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia[d]	114.0	107.0	100.0	91.0	103.0	100.0	85.0	79.0	87.0	83.0	68.0	...
Pakistan	103.7	110.9	104.3	108.5	108.2	100.0	103.5	111.9	109.0	110.4	...	...
Papua New Guinea	...	...	...	96.3	100.4	100.0	89.3	65.0	77.8	130.3	...	...
Philippines	90.5	89.8	89.4	94.4	93.7	100.0	85.1	70.8	90.4	96.9	84.9	...
Republic of Korea	85.6	95.5	99.0	102.9	99.4	100.0	99.2	98.6	93.6	76.2	67.5	66.5
Singapore	...	...	...	...	...	...	...	100.0	106.0	104.8	100.0	102.4
Sri Lanka	133.3	129.8	119.0	110.7	104.8	100.0	92.9	89.3	77.4	69.0	...	...
Thailand	97.8	103.1	102.8	107.9	114.0	100.0	90.9	90.3	121.4	100.6	92.2	...

Source: As for table 7.

[a] Terms of trade is defined by the United Nations as the percentage unit value index of exports to unit value index of imports.

[b] Data are for fiscal year.

[c] For 1972-1974, base year was shifted to 1972 = 100.

[d] Peninsular Malaysia.

ing trends in export prices and in the terms of trade of developing ESCAP countries. The information in table 18 is particularly revealing in that it is generally more up-to-date than the terms of trade or trade statistics that are available. During a period when there has been a strong and persistent tendency for the price of developing country imports to rise, it shows both the dramatic increase in the price of primary commodities which took place from 1973 into, in some cases, early 1975, and the subsequent abrupt decline in the prices of these commodities. Given that these goods comprise the most important among ESCAP developing country exports, the abrupt deterioration in the terms of trade position of these countries, which is partially disclosed in table 19, is sure to be revealed as even more pervasive and widespread as more data come to hand.

The causes of the price shifts shown in table 18 have been discussed elsewhere. With the exception of the prices of tea, jute and petroleum, all commodity prices peaked in late 1973 or 1974. In the case of tea and jute, their highest price was recorded in early 1975. The only commodity whose price has continued to rise is petroleum, although there are some reports that the price of wheat has tended to increase recently following news of the poor harvest in the USSR.

Of the countries listed in table 19, all those for which data are available, including Hong Kong, Malaysia, the Philippines, the Republic of Korea, Singapore, Sri Lanka and Thailand, incurred adverse terms of trade shifts in 1975. As noted above, as more data become available it is probable that the other countries listed will show similar adverse terms of trade shifts in 1975. All the countries listed have suffered from the steep rise in oil prices. In addition, countries such as Fiji,[17] Sri Lanka, Bangladesh, India, Malaysia, the Philippines and Thailand have been affected by the continued rise in the price of their imports from developed economies as well as by the decline in the prices of their primary commodity exports. Although not included in the table, the island economies of the South Pacific, such as Western Samoa, fit into the latter group. Another group of countries, including Hong Kong, the Republic of Korea and Singapore, whose exports are mainly manufactured goods, have also incurred adverse terms of trade effects because the prices of their imports have increased more rapidly than those of their exports. Finally, there are the two oil-producing developing countries, Indonesia and Iran, whose terms of trade have improved as a consequence of the oil price increase.

While it was noted above that commodity prices might not fall again to the levels of the early 1970s, recent adverse movements in the terms of trade have in most cases more than offset the gains registered as a consequence of the commodity price boom of 1973 and 1974. This has led to some severe structural balance of payments problems among ESCAP developing countries.

The developed economies of the ESCAP region were also influenced significantly by movements in world prices. In Japan the terms of trade deteriorated due to rising import prices and continued to deteriorate through 1975, standing in mid-1975 at some 32 per cent below the December 1972 level. Real income in New Zealand was also adversely affected by the sharply adverse terms of trade movement in 1974 and 1975. Higher import prices rather than lower export prices were responsible, the terms of trade declining by 45 per cent from the June quarter of 1973 until the March quarter of 1975.

---

[17] 1975 data for Fiji are sure to reflect the abrupt fall in world sugar prices in 1975.

(iii) *Balance of payments*

As a consequence of developments in the international economy already discussed, severe structural balance of payments problems are being encountered by many ESCAP developing countries. In many cases, deteriorating current account positions have caused countries to run down foreign exchange reserves accumulated during the recent commodity boom and/or to greatly increase their international borrowings from private, public or international institutional sources. To some extent, accelerated foreign assistance flows to some of the most seriously situated countries have also provided a source of finance.

At the heart of the problem is the desperate need of many of these countries to sustain the flow of imports essential to development. Unfortunately, there are some countries so severely affected by the magnitude of the changes in their balance of payments situations that it is difficult to see them in the short to medium term achieving the necessary increase in export or in import substitution that is required to re-establish equilibrium in their balance of payments and to sustain even modest rates of growth in *per capita* incomes. In the case of these countries, which comprise many of the poorest in the developing world, the alternatives are to run down foreign exchange reserves or to borrow at concessionary or non-concessionary rates of interest. For the most part, foreign exchange reserves are already at critical minimum levels, and borrowing at commercial rates has its clear limitations because such loans exacerbate debt/service ratios which are already high in relation to export prospects and import requirements.[18] This leaves an increased flow of concessionary capital as an essential factor in any development strategy which will allow this group of countries, mainly in south Asia, to achieve a growth rate of around 6.0 per cent in their gross national products by the end of the 1980s. Yet even this objective, modest by comparison with the 6.0 per cent target rate of growth set for the decade as a whole, is unlikely to be achieved given the current attitude of the developed countries to official development assistance. The World Bank has noted that, on a global basis, concessionary assistance measured as a proportion of GNP declined from 0.51 per cent in 1963 to around 0.33 per cent in 1974 and that present indications suggest it might fall further to 0.24 per cent by 1980.[19] Yet if the 6.0 per cent target is to be achieved, official development assistance flows from DAC countries would need to increase to 0.81 per cent of GNP.

Table 20 sets out available data for the balance of payments position of a number of ESCAP developing countries. While official 1975 data are not available, preliminary evidence confirms the major conclusions to be drawn from the table. In the case of Sri Lanka, a modest surplus in the basic balance position in earlier years has turned into a large deficit that has had to be met by recourse to emergency borrowing, which Sri Lanka with its low level of foreign exchange reserves can ill afford. In Thailand, developments in 1975 indicate that a large current account deficit and a reduced flow of foreign investment have required emergency borrowing or a further depletion of foreign exchange reserves. In India, a trade surplus of Rs 1,034 million in 1972/73 deteriorated into deficits of Rs 4,019 million in 1973/74 and Rs 10,957 million in 1974/75. In the 1975/76 year, the deficit has increased from Rs 4,172 million in April-September 1974 to Rs 6,293 million in April-September 1975.

Given these recent developments, it would appear that many developing countries in the ESCAP region have incurred growing and in some cases massive deficits on current account and that these have been financed by running down foreign exchange reserves, or sharp increases in private capital flows including export credits (Malaysia, the Philippines, the Republic of Korea), or increases in deposit money in banks (Singapore) or massive recourse to capital inflows on central government account (India and Sri Lanka in recent years, Pakistan and, probably, Bangladesh).

Some awareness of the plight of the more seriously affected countries has emerged in the international community. Early in 1975, the Development Committee, a joint ministerial committee of the World Bank and IMF, recommended the creation of a "special trust fund" whose function it would be to

---

[18] Another alternative would be to adopt a more liberal and encouraging attitude to foreign direct investment and to create a more hospitable environment for it. Given the concern of these countries over existing foreign investment, it is difficult to see them encouraging its inflow on the scale required. Besides, the creation of profit opportunities is no easy matter and, in the current world situation, it is unlikely that private direct investment flows would be forthcoming on the scale required.

[19] World Bank, *op. cit.*, p. 7.

Table 20. BALANCE OF PAYMENTS SUMMARIES IN SELECTED DEVELOPING COUNTRIES OF THE ESCAP REGION

(in million US dollars)

Country/year	*Balance of goods and services including private transfers* (1)	*Central government capital n.i.e. and transfers* (2)	*Private capital n.i.e.* (3)	*Deposit money banks* (4)	*Basic balance* (5)	*International liquidity as percentage of imports c.i.f.* (6)
India						
1968	−680	972	−15	−174	−103	26.6
1969	−287	836	−134	−46	−369	42.0
1970	−462	655	6	−31	−168	47.3
1971	−721	803	33	−94	−21	49.6
1972	−237	439	−71	−264	134	52.8
Iran						
1968	−418	342	102	−119	93	20.8
1969	−543	389	236	−60	−22	20.2
1970	−511	332	141	−179	217	12.6
1971	−122	601	155	−281	−353	33.4
1972	−392	508	13	338	−467	40.2
1973	85	554	−384	166	−420	36.5
1974	10,912	−2,463	−1,972	−271	−6,206	147.8
Malaysia						
1968	20	16	44	−50	−30	44.5
1969	230	55	91	−244	−132	52.6
1970	2	2	99	−90	−13	47.3
1971	−125	148	100	−60	−63	56.3
1972	−253	124	189	−31	−27	59.6
1973	91	49	193	−110	−223	54.0
1974	−286	103	380	−2	−196	39.0
Pakistan						
1968	−441	509	1	−21	−48	25.0
1969	−417	406	66	−19	−36	32.4
1970	−690	455	67	41	127	16.6
1971	−598	489	103	−39	45	20.6
1972	−289	223	49	13	3	42.4
1973	−117	228	48	16	−176	49.0
1974	−1,039	777	49	69	144	26.6
Philippines						
1968	−310	75	319	−185	101	12.5
1969	−302	71	265	−115	81	9.6
1970	−74	64	172	−116	−46	22.1
1971	−33	100	55	116	−97	28.8
1972	−29	191	−45	−24	−183	40.2
1973	−412	135	6	66	−668	57.9
1974	−283	166	535	207	−625	45.2

Table 20. *(continued)*

Country/year	*Balance of goods and services including private transfers* (1)	*Central government capital n.i.e. and transfers* (2)	*Private capital n.i.e.* (3)	*Deposit money banks* (4)	*Basic balance* (5)	*International liquidity as percentage of imports c.i.f.* (6)
Republic of Korea						
1968	—560	145	392	58	—35	27.2
1969	—651	305	425	83	—162	32.0
1970	—707	251	421	84	—49	31.3
1971	—913	297	417	151	48	25.5
1972	—420	280	247	53	—159	29.7
1973	—346	306	466	—76	—349	25.8
1974	—2,094	213	887	822	172	18.4
Singapore						
1968	—136	5	112	236	—217	43.2
1969	—194	12	64	213	—95	40.9
1970	—585	39	114	616	—184	41.6
1971	—735	37	131	885	—319	50.8
1972	—534	70	199	601	—337	51.5
1973	—618	22	347	659	—410	44.6
1974	—1,209	0	718	782	—290	33.6
Sri Lanka						
1968	—64.4	43.4	—0.4	—9.6	31.0	14.2
1969	—141.7	54.9	65.4	0.2	21.2	9.4
1970	—71.4	43.1	36.7	—4.3	—4.1	11.1
1971	—54.2	85.4	—31.1	—0.2	0.1	14.9
1972	—49.3	65.0	—6.4	10.2	—19.5	17.6
1973	—38.1	64.4	8.9	—6.7	—28.5	20.5
1974	—173.4	110.0	44.0	1.2	18.2	11.4
Thailand						
1968	—207	94	91	66	—44	88.6
1969	—253	51	141	46	15	79.6
1970	—296	49	115	50	82	70.5
1971	—212	47	72	75	17	68.6
1972	—101	25	179	94	—197	71.3
1973	—156	59	68	262	—234	63.9
1974	—92	32	377	160	—476	59.1

Source: IMF, *International Financial Statistics*, March 1976.

Notes: Column (1) 77ad − 77afd; Column (2) 77afd + 77bbd;
Column (3) 77bad + 77bcd + 77cbd; Column (4) 77cad + 77dd;
Column (5) 78bd + 78cd + 79d; Column (6) id/71 × af.

provide highly concessionary resources to low-income countries in balance of payments difficulties. In addition, the World Bank has established a so-called "third window" to offer short-term concessionary finance to low-income countries. The net effect of such a development would be to increase total Bank Group's assistance to lower-income countries by about 20 per cent and to make these funds available on appreciably "softer" terms. While such measures are helpful, they are no substitute for the urgently required increase in concessionary capital flows from developed countries.

The structural changes required in the longer run to restore balance of payments equilibrium depend on many factors, including general developments in the international economy, and on special measures which both developed and developing countries might adopt to increase the exports of deficit countries or to reduce their dependence on imports. A large part of the adjustment will involve exchange rate alterations. As table 21 indicates, there is now a much greater preparedness to use such a method of adjustment than in the past. In part, of course, this is because developing countries must react to changes in the exchange rates of their major trading partners; in part also it is because there is a greater awareness of the use of exchange rate alterations in bringing about balance of payments adjustments.

In Japan the balance of payments recorded a substantial deficit in the first half of 1974 following the oil price increase in late 1973. For 1973 considered as a whole, the deficit was some $US 10 billion. A further deficit of $US 6.8 billion occurred in 1974, although balance was again restored in the final quarter of 1974 as a result of the decline in import demand noted earlier. For most of 1975 the balance of payments was in surplus although there were signs of a return to a deficit situation at the end of the year and it is anticipated that this situation will persist in 1976.

While Australia maintained a surplus in the balance of trade in 1974/75 for the seventh year in succession, the deficit position on current account was the largest in dollar terms incurred since 1967/68. Nevertheless, foreign exchange reserves as of June 1975 provided cover for more than four months imports of goods and services.

New Zealand's balance of payments problems are likely to severely curtail economic growth prospects as the deficits experienced in 1974 and 1975 were the worst on record. As a consequence official overseas reserves fell from $NZ 1,094 million in June 1973 to around $NZ 500 million in June 1974 and they have only been held at that level subsequently by extensive overseas borrowing. At this stage, although some improvement on current account is expected in 1976, further extensive borrowing overseas seems likely to be required.

(iv) *Regional trade and monetary co-operation*

Satisfactory progress was made with the Asian Trade Expansion Programme during 1975. At the fifth session of the Trade Negotiations Group in July 1975, agreement was reached among six participating countries on 160 items which would qualify for tariff concessions. The countries concerned were India, Laos, the Philippines, the Republic of Korea, Sri Lanka and Thailand. On average, the tariff concessions represented reductions of about 33.5 per cent from existing rates.

The Asian Clearing Union was formally inaugurated in December 1974. The Central Banks of Bangladesh, India, Iran, Nepal, Pakistan and Sri Lanka are members. The Bank Markazi in Iran will provide headquarters for the Union in Tehran and will conduct clearing operations. Clearing schedule operations commenced in November 1975.

(f) *Monetary and fiscal policy and inflation*

The role of monetary and fiscal policy with regard to resource mobilization has been discussed above in section d. Until recently, the other major goal of monetary and fiscal policies of most ESCAP developing economies was to combat inflation. Inflation, for the most part, was a consequence of developments in the international economy, including the rise in oil and commodity prices and the steady and persistent rise in price of the manufactured exports of the developed economies. It was also, although to a much lesser extent, the outcome of the domestic policies of the developing economies themselves. In particular, in this regard, inflation was fueled as a result of the rapid accumulation of foreign exchange reserves by ESCAP developing countries in 1973 and the boost which this gave to liquidity. Another less important contributing factor was the presence of cost-push elements in a number of countries, such as Pakistan and Thailand.

Table 22 provides information on rates of change in consumer prices in the ESCAP region from 1970 till mid-1975. None of the countries in the region escaped the impact of the world-wide acceleration in prices. The table indicates that, with the exception of Afghanistan, inflation proceeded more rapidly on average in all developing ESCAP countries in 1973/74 than it did on average during 1970-1972. Moreover, with the exception of Bangladesh, Hong Kong and Tonga, inflation in

Table 21. CHANGES IN FOREIGN EXCHANGE RATES,[a] 1965-1975

(currency units per US dollar)

	Currency unit	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975 July		Percentage change[b] 1971	1972	1973	1974	1975 July
Afghanistan	afghani	45.000										45.000		—	—	—	—	—
Bangladesh[c]	rupee	4.782	4.805	4.774	4.809	4.791	4.803	4.793	8.078	8.165	8.076	13.972		-0.2	68.5	1.1	-1.1	73.0
Burma	kyat	4.782	4.805	4.880	4.810	4.792	4.802	5.469	5.402	4.862	4.810	6.550		13.9	-1.2	-10.0	-1.1	36.2
Cambodia	riel	35	35	35	35	55.54	55.54	130	187	275	1650	1650	(Feb.)	134.1	43.9	47.1	500.0	—
Fiji	$F	0.7928	0.7928	0.8708	0.8765	0.8706	0.8731	0.8189	0.8432	0.8092	0.8000	0.8061	(June)	-6.2	3.0	-4.0	-1.1	0.8
Gilbert and Ellice Islands	$A	0.894	0.898	0.892	0.901	0.894	0.897	0.840	0.784	0.672	0.754	0.771		-6.4	-6.7	-14.3	12.2	2.3
Hong Kong	$HK	5.71	5.71	6.06	6.06	6.06	6.06	6.06	5.65	5.085	4.93	4.965	(June)	—	-6.8	-10.0	-3.0	0.7
India	rupee	4.775	7.576	7.547	7.560	7.492	7.509	7.214	8.008	8.130	8.078	8.576		-3.9	11.0	1.5	-0.6	6.2
Indonesia	rupiah	262	85	235	326	326	378	415	415	415	415	415		9.8	—	—	—	—
Laos	kip	240	240	240	240	240	240	600	600	600	600	600	(Feb.)	150.0	—	—	—	—
Malaysia	$M	...	...	...	3.065	3.075	3.078	2.886	2.817	2.452	2.313	2.502		-6.2	-2.4	-13.0	-5.7	8.2
Nepal	rupee	10.125	10.125	10.125	10.125	10.125	10.125	10.125	10.125	10.560	10.560	10.560		—	—	4.3	—	—
Pakistan	rupee	4.782	4.805	4.774	4.809	4.791	4.803	4.793	11.031	9.931	9.931	9.931		-0.2	130.2	-10.0	—	—
Papua New Guinea[d]	kina	0.894	0.898	0.892	0.901	0.894	0.897	0.840	0.784	0.672	0.754	0.771		-6.4	-6.7	-14.3	12.2	2.3
Philippines	peso	...	...	...	3.907	3.907	6.442	6.442	6.690	6.740	7.071	7.516		—	3.9	0.8	4.9	6.3
Rep. of Korea	won	272	271	274	281	304	316	373	399	398	484	484		18.0	7.0	-0.3	21.6	—
Rep. of South Viet-Nam	piastre	60	118	118	118	118	118	118	465	550	685	755	(Apr.)	—	294.1	18.3	24.6	10.2
Singapore	$S	3.06	3.08	3.07	3.084	3.094	3.084	2.904	2.824	2.493	2.313	2.483		-5.8	-2.8	-11.7	-7.2	7.4
Solomon Islands	$A	0.894	0.898	0.892	0.901	0.894	0.897	0.840	0.784	0.672	0.754	0.771		-6.4	-6.7	-14.3	12.2	2.3
Sri Lanka	rupee	...	...	...	5.928	5.928	5.928	5.928	6.698	6.748	6.693	7.112		—	13.0	0.8	-0.8	6.3
Thailand	baht	20.83	20.75	20.80	20.778	20.928	20.928	20.928	20.928	20.375	20.375	20.375		—	—	-2.6	—	—
Tonga[e]	$T	0.88	0.88	0.89	0.89	0.89	0.89	0.85	0.82	0.70	0.68	0.65		-4.5	-3.5	-14.6	-2.9	-4.8
Western Samoa	$WS	0.721	0.721	0.721	0.721	0.721	0.721	0.677	0.674	0.607	0.607	0.607		-6.1	-0.4	-9.9	—	—

Sources: IMF, *International Financial Statistics*, March 1976, and country sources.

[a] Foreign exchange rates refer to the end of-period quotations, "Market rate/Par or central rate". For currencies not quoted in exchange markets, prvailing parities or central rates are given. Multiple rate systems are described by quotations for rates applicable to settlements of the principal trade transactions.

[b] Minus sign indicates revaluation in exchange rates.

[c] A new currency unit, the taka, replaced the rupee at the beginning of 1972.

[d] The kina was introduced on 19 April 1975 and is convertible with the Australian dollar at par.

[e] Fiscal year ends 30 June.

Table 22. CHANGES IN CONSUMER PRICES, 1970-1975
(1970=100)

DMC	1970	1971	1972	1973	1974	1975		Percentage change			
						I	II	1970-1972 average	1973	1974	1975
Bangladesh[a] (Dacca)	100.0	105.4	121.5	181.5	252.5	444.7[b]	411.5	10.3	49.4	39.1	61.4
Burma (Rangoon)	100.0	102.2	109.9	135.8	172.4	191.2	222.7	4.8	23.6	27.0	...
Cambodia (Phnom-Penh)	100.0	171.3	214.9	554.2	1,818.9	...	...	48.4	157.9	228.2	—
Fiji	100.0	106.5	116.2	129.2	147.9	161.5	165.1	7.8	11.2	14.5	13.0
Gilbert and Ellice Islands	100.0	107.2	112.9	131.1	153.4	164.3	...	6.3	16.1	17.0	...
Hong Kong	100.0	103.4	109.7	129.6	148.3	146.5	149.7	4.7	18.1	14.4	1.2
India	100.0	103.3	109.8	128.3	156.2	176.1	177.2	4.8	16.8	28.8	5.6
Indonesia (Jakarta)	100.0	104.3	111.1	145.6	204.8	229.3	238.5	5.4	31.1	40.7	19.0
Laos (Vientiane)	100.0	101.3	126.8	165.7	248.1	313.0	382.9	13.2	30.7	49.7	58.6[b]
Malaysia (West)	100.0	101.6	104.8	115.9	136.0	142.8	141.3	2.4	10.6	17.3	4.6
Nepal (Kathmandu)	100.0	101.3	112.7	119.3	142.9	153.1	161.9	6.3	5.9	19.8	16.4[c]
Pakistan[d]	...	100.0	105.2	126.9	164.0	187.6	197.8	5.2	20.6	29.2	20.9
Papua New Guinea[d]	...	100.0	106.1	114.9	141.6	150.9	154.1	6.1	8.3	23.2	10.4
Philippines (Manila)	100.0	114.6	126.3	140.2	188.4	201.7	200.1	12.4	11.0	34.4	9.4[e]
Rep. of Korea (Seoul)	100.0	112.3	125.6	129.5	160.1	181.8	199.3	12.1	3.1	23.6	26.3
Rep. of South Viet-Nam (Saigon)	100.0	118.2	148.1	213.9	331.7	388.2	...	21.8	44.4	55.1	31.1[f]
Singapore[g]	100.0	101.9	104.0	127.9	156.4	161.9	159.4	2.0	23.0	22.3	2.6
Solomon Islands (Honiara)	100.0	102.8	106.9	110.2	130.6	144.9	144.9	3.4	3.1	18.5	...
Sri Lanka (Colombo)	100.0	102.7	109.2	119.7	134.4	142.1	143.4	4.5	9.6	12.3	6.8
Thailand (Bangkok Metropolis)	100.0	102.0	106.1	118.5	146.1	149.0	150.7	3.0	11.7	23.3	4.1
Tonga (Nuku'alofa)	100.0	102.1	108.7	131.2	150.5	161.8	164.7	4.3	20.7	14.7	10.4[h]
Western Samoa[i] (Apia)	...	...	108.0[j]	118.4	147.9	160.3	164.2	...	9.6	24.9	8.8

Source: United Nations, *Monthly Bulletin of Statistics*, April, 1976.

[a] Years ending June of year stated.

[b] The first eight months of 1975 compared with the first eight months of 1974.

[c] The first seven months of 1975 compared with the first seven months of 1974.

[d] 1971 = 100.

[e] The first ten months of 1975 compared with the first ten months of 1974.

[f] The first three months of 1975 compared with the first three months of 1974.

[g] The series have been linked at 1973.

[h] The first nine months of 1975 compared with the first nine months of 1974.

[i] August 1971 – July 1972 = 100.

[j] Average of August to December.

1974 considerably exceeded its record levels in 1973. However, partial observations suggest that the rate of inflation is abating in the majority of ESCAP developing countries in 1975. India has proven to be conspicuously successful in this regard given the high level of inflation prevailing in 1974.

With the exception of the war-affected countries of Cambodia, Laos and the Republic of South Viet-Nam, the causes of inflation are those mentioned above, but the range of inflation rates is very wide. In 1974, it ranged from over 40 per cent in Indonesia to a low of 12.3 per cent in Sri Lanka where the effects of inflation were suppressed by a wide range of administered prices and subsidies. Significantly, in none of the twenty-two countries observed was inflation less than 10 per cent and in only seven of them was it less than 20 per cent.

The consequences of such inflation are well known: it places a burden on the balance of payments; it severely affects patterns of income distribution and, unless special measures are adopted, it bears heavily on the poorer sections of the population who are less able to defend the real values of their incomes; and it discourages savings and encourages investment in speculative activities. These effects were operative in all the countries concerned, and it became a major task of economic policy to offset some of the more harmful consequences. The abatement in the inflation observed in 1975 is partly a result of a slowing-down of world inflation but partly also a result of successful policies adopted by the developing countries themselves. Of the eighteen observations available for 1975, eight indicated annual inflation of less than 10 per cent, five of from 10 to 20 per cent, and only five of more than 20 per cent.

A number of ESCAP developing countries took action to raise interest rates to more realistic levels in view of the erosion in their nominal value by inflation. For instance, in Pakistan the State Bank increased the bank rate from 8 to 9 per cent and in India the bank rate was increased from 7 to 9 per cent.

Until late 1974 or early 1975, most countries adopted tight monetary and fiscal policies. Table 23 sets out changes in the money supply of ESCAP

Table 23. CHANGES IN MONEY SUPPLY, 1970-1975

(end of period)

DMC	Unit	1970	1971	1972	1973	1974	1975		Percentage change		
							I	II	1970-1972 average	1973	1974
Afghanistan[a]	million Af	7,354	7,691	8,046	9,531	11,002	...	12,107[b]	4.6	18.5	15.4
Bangladesh[a]	million Taka	3,750	3,906	4,857	6,965	8,167	9,010[c]	...	13.8	43.4	17.3
Burma[a]	million K	2,448	2,470	2,872	3,652	4,182	...	5,482[b]	8.3	27.2	14.5
Cambodia	million R	14,117	22,419	35,736	58,881	78,137[d,e]	...	...	62.0	64.8	32.7[d,e]
Fiji	million $F	33.4	38.7	46.1	50.1	63.0	63.3	65.7	17.5	8.7	25.7
Hong Kong	million $HK	6,904	8,249	11,878	12,335	12,028	12,541	13,054	31.2	3.8	—2.5
India[a]	billion Rs	63.87	71.40	81.38	94.13	108.48	...	...	12.9	15.7	15.2
Indonesia	billion Rp	250.3	320.8	474.6	669.0	940.2	1,046.9	...	37.8	41.0	40.5
Laos	billion K	16.2	18.8	24.4	26.7	36.7	...	...	22.6	9.4	37.4
Malaysia	million $M	2,032	2,120	2,715	3,735	4,055	4,102	4,157	15.6	37.6	8.6
Nepal[a]	million NRs	763	793	858	1,016	1,281	1,449	...	6.1	18.4	26.1
Pakistan[a]	million PRs	13,127	12,133	16,730	20,965	22,828	23,721	...	12.9	25.3	8.9
Papua New Guinea[e]	million kina	34.8	41.9	46.8	57.1	69.8	78.4	...	15.9	22.0	22.2
Philippines	million ₱	5,047	5,567	6,797	8,152	10,220	9,348	9,607	16.0	19.9	25.4
Rep. of Korea	billion W	307.6	358.0	519.4	730.3	945.7	915.8	928.4	29.9	40.6	29.5
Rep. of South Viet-Nam	billion Piastres	162.9	208.4	227.8	268.1	334.0	...	...	18.2	17.7	24.6
Singapore	million $S	1,600	1,786	2,413	2,663	2,890	3,096	3,092	22.8	10.4	8.5
Solomon Islands	million $A	...	...	...	...	...	...	...	...	...	...
Sri Lanka	million Rs	1,967	2,149	2,481	2,778	2,946	...	...	12.3	12.0	6.0
Thailand	billion B	19.4	21.4	24.8	29.9	32.9	34.1	32.5	13.0	20.6	10.0
Tonga[e]	thousand $T	1,530	1,560	1,813	2,043	2,316	...	...	8.8	12.7	13.4
Western Samoa	thousand $WS	1,828	2,591	3,108	3,940	3,688	3,446	3,134	30.3	26.8	—6.4

Source: As for table 7.

[a] Data are for fiscal year.

[b] Annual figures.

[c] As of February.

[d] As of July.

[e] Currency in circulation only.

developing countries from 1970 to 1975. It indicates the rapid expansion in the money supply which occurred in 1973 and the slowing-down of monetary expansion in the majority of countries in 1974. The latter is more significant in that the money values of trade and national income were inflated considerably in 1974. Compared with 1973, some fifteen countries adopted a lower rate of expansion in their money supply as against seven countries whose rate of expansion was higher. In many cases, the reductions in the rate of expansion of the money supply were substantial. Apart from deliberate policy measures, adverse developments in the balance of payments situations of many of the countries concerned also brought about a reduction of liquidity.

Although adequate data are not available, it would appear that the concern over inflation has been replaced in 1975 by a concern over recession and there has been a tendency for more expansionary monetary and fiscal policies to be adopted. For instance, in Malaysia, credit growth ceilings which were introduced in April 1974 were abolished in February 1975 and interest rates and statutory reserve requirements were reduced. In India, during the period March 1975 to November 1975 the money supply increased by 7.1 per cent as compared with a 2.2 per cent increase in the corresponding period in 1974. Among other measures, the credit policy of the Reserve Bank envisages a selective liberalization of the previous tight monetary policy by way of lower margins for advances.

A number of fiscal measures have also been used to control the effects of inflation. These range from the use of tariff reductions and export restrictions in the case of Malaysia, to the removal of export taxes on such goods as cotton yarn and cotton cloth in Pakistan, to the provision in Pakistan of extra revenue for subsidizing essential imports, such as fertilizers, or important consumer goods, such as wheat, edible oils and kerosene, and to the use in Thailand of regulated prices on such goods as kerosene, sugar and condensed milk.

The problem with many of these measures is that, although well intended, they encourage excess demand for the scarce goods concerned, can lead to the development of smuggling and black markets, and discourage both the consumption and the production of substitute products. Some Governments have been aware of this as well as of the cost of subsidies. Steps have therefore been taken in a number of countries to price commodities more realistically in the domestic market by making use of exchange rate alterations, or, in the case of Sri Lanka, by allowing the price of some subsidized goods to rise or by reducing 'free rice' quotas.

Among the developed ESCAP countries, Japan was not able to avoid the impact of world inflation and wholesale prices rose by a record 31 per cent in 1974. Initially, monetary and fiscal policies were directed towards controlling inflation, but, since 1975, greater emphasis has been given to the problem of recession. At best, 1975 has brought some hard-won improvements, including a negligible yet positive rate of growth in GNP and an inviable reduction in the rate of inflation of wholesale prices to around 3.0 per cent. A major point of economic debate in Japan at the present time concerns the role of monetary and fiscal policy in 1976. Too conservative an approach it is thought could jeopardize economic recovery.

Australia in 1974 faced problems of stagnation of real expenditure and production, high and growing unemployment, and continued inflation of around 16 per cent per annum. These trends continued in the second half of 1975. The exercise of monetary and fiscal policy was directed towards the unemployment problem while attempts were made to deal with inflation with wage indexation which was introduced in April, 1975. The prospects for 1976 are for a slight abatement in the rate of inflation to around 13 per cent and of unemployment to about 3.5 per cent.

In New Zealand the consumer price index rose by 10 per cent in 1973 and by nearly 15 per cent in the year to September, 1975. Inflation was due in part to the rise in unit value of goods traded internationally; it was due also to the general easing of monetary policy in 1973, to sharp increases in money wages and to the generally expansionary effects of the budgets in 1974 and 1975. As in Australia, monetary and fiscal policy has been used to combat the effects of the recession and incomes policy to grapple with inflation.

Part Two

RURAL DEVELOPMENT, THE SMALL FARMER AND INSTITUTIONAL REFORM

Chapter 1.

INTRODUCTION

In a region which contains so many heterogeneous countries, generalizations are difficult to make. It can be said, however, for most ESCAP developing countries that a generation of economic development has done little to improve the living conditions of a large proportion of the people and that the employment opportunities created by economic development have fallen considerably short of the increases which have taken place in the work force, thus exacerbating the already high level of underemployment and unemployment. This is a grim comment upon economic development strategies which had, as one of their main designs, the elimination of poverty and the associated high and persistent levels of unemployment.

Recent World Bank estimates indicate the broad magnitudes and geographical spread of poverty in the ESCAP region.[1] They reveal that the number of people in Asia[2] living in conditions of absolute poverty,[3] defined by income levels below which even minimum standards of nutrition, shelter and personal amenities cannot be maintained, amounted in 1969 to 415 million persons or to about 40 per cent of the total population. Of these poor, about 355 million lived in rural areas and 60 million in urban areas. These broad magnitudes clearly indicate that poverty is essentially, though not exclusively, a rural phenomenon. Indeed, poverty in urban areas has been exacerbated by the flow of the rural poor to the cities in search of employment, their numbers far exceeding the capacity of the urban sector to provide productive jobs for them.

Within the region, poverty is concentrated in four of the most populous developing countries — Bangladesh, India, Indonesia and Pakistan — where about 295 million people in rural areas and 55 million people in urban areas live on incomes below $US 50. These four countries account for almost two-thirds of the total number of people living in absolute poverty in all developing countries. It is estimated that about three-quarters of the total number of poor people in the developing world reside in the developing ESCAP region.

Poverty is closely related to employment opportunities. Apart from a highly skewed income distribution and a pervasive low level of productivity in rural areas, the failure to utilize fully the available labour force lies at the root of the poverty problem. An assessment of the degree of underutilization of labour in ESCAP developing countries is difficult in view of the paucity of data. Data on open unemployment, which is usually the most often available type of statistical information, reveals only part of the employment problem. In many developing countries, open unemployment is less important than underutilized labour. In most developing ESCAP countries, underutilization of labour results from large numbers of people being seasonally unemployed or permanently underemployed and this makes the task of measuring the extent of underutilization of labour extremely complex. Furthermore, the concept of open (registered) unemployment related to a Western-type developed economy based on wage labour and highly-organized labour markets is clearly not adequate for developing countries where the bulk of the labour force consists of self-employed and family labour.

Attempts have recently been made in a number of countries in the region to assess the employment situation more fully, taking into account not only unemployment but also underemployment aspects. Admittedly, available statistics on unemployment and underemployment are suspect, but, to indicate rough orders of magnitude, the following data are supplied without implying, of course, any intercountry comparability because of the different concepts and methods used in data computation.

In India, the latest assessment of unemployment was made by the Committee on Unemployment set up by the Government of India in 1970. The Committee in its final report in 1973 estimated the number of unemployed persons in 1971 at 18.7 million, including 9 million who were wholly unemployed and 9.7 million who worked less than 14 hours a week. Out of 18.7 million unemployed, 16.1 million were in rural areas and 2.6 million in urban areas. Relating these figures to the data on the 1971 labour force given in the draft fifth five-year plan document, the unemployment rates come out at more than 8 per cent for the urban and more than 12 per cent for the rural labour force.

---

[1] IBRD, "Rural development", Sector Policy Paper, pp. 78-79.

[2] Excluding China and other Asian socialist economies.

[3] The World Bank established a rough criterion of an annual *per capita* income equivalent to $US 50 or less in 1971 prices as a measure of absolute poverty. People having incomes above the equivalent of $US 50 but below one-third of the national average *per capita* income are considered to be in relative poverty.

In the Philippines, it was reported that in 1972 out of a labour force amounting to 14.2 million persons, 6.9 per cent or roughly 1 million were unemployed. In addition, underemployment was widespread, with about 1.8 million people or 13.5 per cent of the labour force wanting additional work in 1971.[4,5] In Bangladesh, although reliable estimates are not available, it is frequently suggested that, on average, up to 30 per cent of the available labour is not used.[6] In agriculture, the estimated rate of unemployment and underemployment in 1972/73 was about 37 per cent of the total agricultural labour force.[7]

In Indonesia, statistics of unemployment initially derived from the 1971 population census revealed the dubious fact that only 2.2 per cent of the labour force were unemployed in the census referenced period of one week (1.75 per cent in rural areas and 4.84 per cent in urban areas). Later results published in 1974 in Series E of the 1971 census indicate a much higher unemployment rate of 8.9 per cent.[8] Moreover, the proportion of the labour force working for less than 30 hours a week, i.e. visibly underemployed by definition, is known to be very high. For example, estimates for Java and Madura indicate more than 20 per cent of the working population visibly underemployed.[9]

In Iran, it was estimated that in 1972/73 more than 400,000 people were seasonally unemployed and about 300,000 were permanently unemployed, altogether accounting for about 7 to 8 per cent of the total labour force.[10] In Malaysia, it was reported that the number of unemployed declined from 7.5 to 7.3 per cent of the total labour force in the 1970-1973 period.[11] In Sri Lanka, where unemployment problems are extremely serious, in 1971 there were about 550,000 persons unemployed out of a labour force of 4.5 million, i.e. an unemployment rate of over 12 per cent. It was reported that, in Nepal, where 96 per cent of the total population live in rural areas, recent studies showed an extremely high degree of underemployment of about 50 per cent of the agricultural labour force.[12] According to the surveys carried out in the north and northeast of Thailand in the late 1960s, 20 to 30 per cent of available annual work hours in agriculture were not utilized in these areas and during the dry season this proportion exceeded 50 per cent.

The existing backlog of unemployed and underemployed provides one dimension to the employment problem facing ESCAP developing countries, the other dimension being the expected acceleration of growth in the labour force throughout the 1970s, reflecting the population explosion of previous decades.

According to ILO projections,[13] the labour force in ESCAP developing countries[14] is going to increase in the 1970s by 2.3 per cent per annum and in the 1980s by 2.5 per cent per annum. The slow-down in the growth of the labour force cannot be expected to take place before the end of this century. Fractional increases in the labour force growth rate from levels of 2.1 per cent per annum prevailing in the 1960s assume staggering proportions when translated into the absolute numbers of the new entrants seeking jobs in the already clogged labour market. Whereas in the 1960s the labour force in ESCAP developing countries increased by about 70 million, in the 1970s and 1980s it is expected to increase by about 100 million and 140 million respectively.

However suspect they may be, the figures given above about the incidence of poverty and unemployment show clearly that in most ESCAP developing countries it is an extremely serious problem and that in absolute terms the number of the rural unemployed and underemployed and the rural poor has continued to grow and can be expected to continue to grow at an alarming rate. The reasons for this growth in the number of those living in depressing and abject

---

[4] Republic of the Philippines, *Four-Year Development Plan FY 1974–1977*, p. 335.

[5] Using the low-income concept for measuring underemployment, the ILO comprehensive employment strategy mission to the Philippines came out with a rough "guesstimate" of total unemployment (i.e. open unemployment plus an inadequate income measure of underemployment) of about 25 per cent of the total labour force (see *Sharing in Development, a Programme of Employment, Equity and Growth for the Philippines* (ILO, Geneva, 1974), pp. 7-8.

[6] Government of Bangladesh, Planning Commission, *The First Five-Year Plan, 1973–1978*, p. 17.

[7] *Ibid.*, p. 187.

[8] For explanation of this difference as well as for other comments on possible understatement regarding the labour force estimates contained in the 1971 census, see: Gavin Jones, "Labour supply in the regions of Indonesia", Department of Demography, Australian National University, August 1974 (mimeo.), quoted here from H. W. Arndt, "Development and equality: The Indonesian case", *World Development*, vol. 3, nos. 2 and 3, February–March 1975, pp. 77–90.

[9] *Asian Regional Project for Employment Promotion: Consultative and Evaluative Workshop*, Bangkok, December 1973, Country statement: Indonesia, p. 36.

[10] *Ibid.*, Country statement: Iran, p. 44.

[11] Government of Sri Lanka. Ministry of Planning and Employment, *The Five-Year Plan 1972–1976*, p. 4.

[12] Country report on Nepal by M. M. Sainju and Ram Bahadur, K. C. in *Organization of Peasants in Asia*, report on the regional workshop organized by Friedrich-Ebert-Stiftung in co-operation with FAO and ILO, 28 October – 2 November 1974, Bangkok, p. 102.

[13] International Labour Office, "Labour Force Projections", Geneva, 1971. The projections shown are those based on the United Nations medium variant for total population.

[14] Excluding China and other Asian socialist ecomies. In the case of this group of countries, the growth in labour force has already slowed down, reflecting the general demographic trends. Projections for 1970–2000 indicate a rate of labour force growth at about 1.5 per cent per annum.

poverty are well documented[15] and no attempt is made here to review the causal factors other than to mention the impact of high population growth rates on those seeking work and on dependants to be provided for and the low impact on employment opportunities of urban-biased capital-intensive industrial development strategies and policies. It has been clearly demonstrated in a number of studies[16] that an extension of the past pattern of industrial development in most ESCAP developing countries cannot make other than a marginal contribution to the enormous problem of unemployment, underemployment and poverty in rural areas.[17]

In these circumstances, and particularly in the heavily populated countries of south Asia and in Indonesia, there has been a growing awareness that any redress of the imbalances created by past patterns of development or any reduction of existing poverty and unemployment will require a new development strategy aimed directly at improving the lot of people living a little above or below the poverty line. The main thrust of this strategy must be to generate productive employment opportunities for the unemployed or underemployed and the working poor rather than merely to redistribute earned income from the relatively better-off to the poorer sections of the countries concerned. In part this is because any redistribution of income *per se* would do little to eliminate poverty and in any case is unlikely to evolve in practice given the enormous problems of political will and the administrative burden and cost of implementing a successful welfare policy. In part also, it is because the social justice to which the countries concerned as well as the United Nations in general subscribe requires the elimination of social, cultural, organizational and economic distortions and constraints which impede the poor from raising their productivity and incomes with self-respect and from making their contribution to the broadly conceived development of their societies.[18]

As a consequence, in many ESCAP developing countries the elements of a rural-biased, employment-oriented, development strategy aimed at growth with social justice can be seen. Because they are typical of such development strategies, the rather long quotations from the current Indian *Draft Five-Year Plan* and from the *First Five-Year Plan* of Bangladesh are given below.

"Redistributive growth is a major objective of the Fifth Five-Year Plan. In this context, the conventional fiscal measures for redistribution of income cannot by themselves make a significant impact on the problem. Since a major cause of inequality is large scale unemployment and underemployment, the most effective way to deal with it is to provide vastly expanded employment opportunities at reasonable income levels. . ."

"Since two-thirds of the population are engaged in agriculture, about the same proportion of the additional labour force will be generated in this segment. In agriculture the incidence of unemployment and underemployment is high particularly among the agricultural workers, and marginal and small farmers who have a poor resource base of land and capital. At the present pace of industrialization, any mass scale transfer of the labour force from agricultural to non-agricultural sectors is ruled out. The growing labour force in agriculture has, therefore, to be provided with fuller employment within agriculture. Considerable possibilities in this direction have opened up with the recent technological breakthrough which has significantly enlarged the scope for intensification of agriculture thereby enabling the small holdings to be economically viable and profitable. But this will, no doubt, call for effective redistribution of land, coupled with support in organization, credit inputs, marketing and other extension facilities to the small and marginal farmers."[19]

"The small farmers and marginal farmers schemes are proposed to be unified and enlarged in the Fifth Plan. The new programme will cover not only irrigated agriculture but also dry farming on a large scale following the techniques so far learnt in the pilot projects on dry farming. The reoriented scheme has also got a large programme of local construction mainly in earthwork, thereby giving employment to a large labour population in the off season. In addition, the growth in the agricultural sector is expected to generate more employment opportunities through intensive farming in the command area."[20]

---

[15] *Economic Survey of Asia and the Far East, 1971* (United Nations publication, Sales No. E.72.II.F.1), chap. 2; and *Redistribution with Growth* (Oxford University Press, 1974).

[16] *Economic Survey of Asia and the Far East, 1971, op. cit.*, chap. 2.

[17] Of course, there are developing ESCAP countries which have either reached a relatively higher level of industrial development or possess the resource base for such an extremely fast industrial growth that for them the need to develop agriculture along the labour-intensive path does not arise so strongly or does not exist at all. In general, the need to maximize employment in agriculture is directly related to the over-all rate of population (labour force) growth, the extent of unemployment and underemployment, particularly in rural areas, and the initial share of agriculture in the total labour force. It is inversely related to the rate at which non-agricultural employment can be created.

[18] Among the international agencies, the ILO has been in the forefront of endeavours to develop a comprehensive, employment-oriented strategy aimed at the simultaneous achievement of the "trinity" of development objectives: growth, employment and more equal income distribution. In the framework of its World Employment Programme, the ILO has *inter alia* organized comprehensive interagency missions to three ESCAP developing countries: Sri Lanka, Iran and the Philippines. In the reports of these missions, as well as in other documentation generated by the research component of the World Employment Programme, the central role of the mobilization of the rural sector in any anti-poverty and employment-oriented strategy has been emphasized.

[19] Government of India, *Draft Fifth Five-Year Plan, 1974-1979*, vol. II, p. 268.

"All these schemes emphasize the fact that without an increase in the production base of small and marginal farmers, it is not possible to increase their incomes to the desired extent. Accordingly, these schemes are not to be viewed as programmes of social welfare relying on transfer payments by the State but are meant to step up the share of output accruing to these categories of population through providing them with necessary credit, infrastructure and other organizational facilities."[21]

Similarly, in Bangladesh, the *First Five-Year Plan* states:

> "Foremost among the targets of the Five-Year Plan is that of increasing the level of employment. This is because an increase in employment not only creates additional output but also makes it available to the lowest of the income groups; it thus helps to ensure the achievement of the twin objectives of growth in the national product and its optimum distribution."[22]

The critical importance of the agricultural sector in employment generation is reflected in the plan. About 57 per cent of additional employment in the 1973-1978 period is expected to be generated in agriculture and related activities while only about 12 per cent is expected to be generated in the industrial sector.[23]

The above outline of the serious unemployment situation in ESCAP developing countries is not meant to suggest that the elimination or reduction of unemployment will eliminate poverty. Obviously, to the extent that additional employment opportunities are created, output will tend to rise and the problem of poverty will be integrated. Any lasting improvement in the incidence of poverty, however, must depend for its major effect on policies that will raise the productivity of the working poor as well as the unemployed or underemployed.

It is important to note that the major elements of rural development strategies in ESCAP developing countries do not only concern agriculture but include other activities, such as the establishment of agro-industries and other small and medium-size industries in rural areas, the building-up and operation of the rural economic and social infrastructure by labour-intensive methods and the use of other broadly-based rural, institutional and organizational reforms. In the case of agricultural production, it seems that development plans generally give emphasis to the promotion of labour-intensive methods of farming on small family farm units as being the strategy most likely to achieve the desired output and employment objectives. The rationale for this point of view is discussed in chapter 2 below.

It is the purpose of this *Survey* to look closely at the existing role of the small family farm in rural and general economic development in the ESCAP region. No attempt is made to survey in detail the position of small farmers in individual countries but rather to look at the general nature of problems confronted by small farmers, drawing upon regional examples for illustrative purposes. From our analysis of small farmers' problems in chapters 3 to 6 in such diverse areas as the marketing of their output, the acquisition of inputs, the transfer of technology, the availability and use of irrigation facilities and the nature and pattern of land distribution and tenure, we proceed in chapter 7 to a discussion of institutional reforms which are considered to be a necessary condition for the raising of the productivity and incomes of small farmers. Finally, chapter 8 summarizes the main arguments of the *Survey*.

In what follows, the *Survey* concentrates on small farmers because they are an important and identifiable target group with a particular set of problems to which a particular set of policies apply. In no way does this suggest that there are not other important target groups in rural areas, such as the landless poor or the small but marginal and non-viable farmer. It does suggest, however, that, while many of the remedial measures suggested for small farmers, such as land reform or a more labour-intensive pattern of agricultural development, will favourably affect the lot of the landless poor, in general their problems require different analysis and different remedies. Nevertheless, as chapter 7 makes clear, the institutional-cum-organizational reforms which are necessary in rural areas to promote a successful small farmer development strategy require that such reforms include rural society as a whole if they are to be successful. Thus, while the more narrowly conceived economic measures which would improve the lot of the small farmer would indirectly and favourably affect the landless poor, the necessary institutional and organizational measures discussed in chapter 7 would affect and involve directly rural society as a whole.

---

[20] *Ibid.*, p. 9.

[21] *Ibid.*, vol. I, p. 22.

[22] Government of Bangladesh, Planning Commission, *The First Five-Year Plan 1973-1978*, p. 17.

[23] *Ibid.*, p. 19.

We turn now in chapter 2 to consider three important issues: what is the rationale for a small farmer development strategy as distinct from other forms of organization of rural production; how to identify the target groups of small farmers; and how important in terms of population, output, etc. is this target group.

Chapter 2.

THE SMALL FARMER

This Chapter examines three important and interrelated problems. Firstly, what are the arguments which can be mounted in favour of a small farmer development strategy? Secondly, if a small farmer development strategy is to be pursued, it becomes essential to be able to identify the target groups of small farmers for policy purposes. This raises important issues, such as how to distinguish small farmers from landless labourers and marginal farmers, on the one hand, and from more favourably situated farmers on the other. Finally, it is necessary to consider the importance, actual and potential, of the small farmers in the ESCAP region. What proportion of the total and rural population comprise small farmer households? What proportion of cultivated land area is farmed by small farmers? What is their contribution to agricultural output or to the output of such important commodities as rice and wheat? We examine first the important question concerning why a small farmer development strategy should be adopted.

1. *A small farmer development strategy*

In considering the case for a small farmer development strategy, it may help if an outline of our argument is given first. We commence by arguing that, with appropriate institutional reforms, including land reform, the current agricultural technology in use in the ESCAP region can be made in most cases to approximate scale neutrality. It is then argued that observed differences in agricultural production techniques on small and large farms and unemployment in rural areas arise primarily because of distortions in factor markets brought about either by deliberate action by Governments or as an unwitting consequences of their policies, by monopolistic and monopsonistic influences in rural areas and by other factors. Thus, in the absence of appropriate institutional reforms and other remedial and effective changes in policy, agricultural output will remain at less than optimal level and high levels of unemployment or underemployment will persist.

Given appropriate institutional reforms which make agricultural production more genuinely neutral with respect to scale and the removal of the distortions in factor markets[1], it should not matter as far as economic growth is concerned whether a small-farm or large-farm strategy or some combination of them is pursued.[2] As long as an equitable income distribution remains a goal of government policy, however, there can be no doubt that, with one exception, a small-farm development strategy, with its far less highly skewed pattern of land ownership, should represent the preferred strategy of Governments seeking growth with social justice.

The exception is an important one, restricting the scope of the analysis of the *Survey*. While a more labour-intensive farm strategy based on the existing pattern of land ownership and distribution would result in a more highly skewed income distribution pattern, a farm strategy based on the communal ownership of large units of land and other means of production need not.[3] Such practices are now common in China and other socialist countries in the ESCAP region. The development of such solutions, however, which may prove to be economically as efficient as the small farmer strategy urged in this *Survey,* would seem to require drastic political change that might be unacceptable to the Governments of market-oriented economies of the ESCAP region. It is upon a solution of rural development problems in these latter economies, with their strongly institutionalized private ownership of land, that this *Survey* concentrates. No value judgement about the appropriateness of the two widely differing strategies which are carried out under completely different circumstances is implied.

Much of the economic debate about the appropriateness of a small-farm development strategy depends upon whether or not current agricultural production practices could be said to approximate scale neutrality. If they do, then, providing all farmers face the same prices for inputs, production techniques should be similar on small and large farms and output would be proportionate to the amount of inputs used.

---

[1] As the rest of this *Survey* indicates, the attainment of these given conditions is likely to prove extremely difficult, involving Governments not merely in being willing and able to implement far-reaching economic measures but also in requiring them to be willing and able to carry out even further-reaching social and institutional changes.

[2] This statement is suitably qualified below where such things as differing saving propensities, the likely greater intensity and duration of effort of small farmers than large farmers and the effect of a continued highly skewed land ownership pattern on growth are also taken into account.

[3] It might be pointed out that an alternative exists in which land might continue to be privately owned in small lots but be farmed co-operatively. In the absence of scale economies, however, and given no redistribution of land ownership, there are no strong reasons for expecting that this solution would be superior to a small-farm development strategy. Unfortunately, little factual information is available about such experiments within Asia. Probably this is because the strongly independent attitude of the small farmer has discouraged such schemes, but possibly it is also a consequence of this type of development not having been adequately considered in this region.

A number of arguments have been put forward to suggest that larger farmers experience economies of scale. In the application of two of the most important inputs of the green revolution, namely the new seed varieties and fertilizers, this is certainly not so as they are nearly infinitely divisible in their use. It is often pointed out, however, that water irrigation systems and certain types of mechanical equipment are subject to scale economies, yet, even in their case, one need note important qualifications. On the one hand, large dams and associated irrigation systems require large and fairly indivisible capital investment, yet their services can be provided as well for small as for large farm units and their construction by the government is in no way dependent upon a highly skewed land ownership pattern. On the other hand, low-lift pumps, which are commonly used in moving water from river or canal to paddy field, are of simple design and have only negligible scale economies in their use. Moreover, while tubewells require some seven or eight hectares of land for their efficient use, many farmers with less land than this have sold their excess water to neighbours or some form of group action by small farmers is able to capture the associated scale economies.

A sounder objection can be made in the case of mechanization where this is socially as well as privately profitable. For instance, there is clear evidence that a four-wheel tractor on wheat-growing land is subject to falling unit costs up to about 100 acres of land and that combines operate more efficiently over an even larger area. Again, however, the advantage which this might give to large farmers could be offset by the hiring out of such services; by the sharing of ownership of the equipment among small farmers, etc. Furthermore, there would appear to be most solid evidence that the use of tractors is generally not efficient in ESCAP developing countries, when the social rather than the private rate of return to capital is considered.[4] This point is considered further below when examining the various distortions in factor markets which encourage capital-intensive techniques in agriculture and make for the more rapid rate of adoption of the new technology by larger rather than smaller farmers.

If in its application the new technology can be said to be fairly neutral with respect to scale, the same cannot be said of the purchase of the requisite inputs nor of the sale of associated outputs. For obvious reasons, it is evident that the purchase of inputs in small lots, the sale of output in small lots and the acquisition of small amounts of credit will be more costly than where larger transactions are concerned. These constitute perhaps the most important scale effects, and it is one of the major purposes of the *Survey* to argue that they can be substantially diminished, if not eliminated by appropriate institutional-cum-organizational change. The formation of farmer co-operatives, for instance, could secure the economies of scale associated with the bulk buying of inputs, such as fertilizers. In considering such economies of scale, it is also important to note that there are possible diseconomies of scale associated with the operation of larger farm units. Thus, problems associated with the organization of labour on larger farms induce the adoption of labour-saving mechanization.

Finally, it has been argued that small farmers are less able to bear the risk of failure in adopting improved practices and seed varieties than are larger farmers and, as a consequence, a large farm strategy will result in a more rapid adoption of new technology.[5] Chapter 3 below argues that this risk factor may be over-stated as far as small farmer operators are concerned and that policies dealing with such things as the dissemination of information, with co-operative action by small farmers or with some form of minimum income insurance can reduce substantially the different awarenesses of risk which are involved.

Even if most of the agricultural output in ESCAP developing countries was more nearly neutral with respect to scale, there exist many distortions in factor markets which are responsible for the adoption of more capital-intensive and, from the social point of view, economically wasteful techniques of production on large farms, as well as for under-employment or unemployment in rural areas and a less than optimal level of agricultural output. The presence of these distortions, sometimes the deliberate result of government policy, often the unwitting side-effect of policies directed at other objectives, have been well documented in a number of studies.[6] These distortions arise because of the monopoly or monopsony power of large landowners in rural markets for labour, land and capital, because of the greater political power exercised by large landowners in securing more than their just share of government services and expenditure on physical infrastructure and in securing access to agricultural acquisitions, such as credit and fertilizers, and because of government policies in such areas as import licensing controls, tariffs or multiple exchange rates. There have been two major effects of such policies. On the one hand, as far as the large farmer is concerned, by raising the private marginal rate of return on capital and land above its social marginal opportunity cost and lowering the private marginal rate of return on labour below its social marginal opportunity cost, a more capital-intensive form of production technique than is socially optimal has been encouraged on large farms. On the other hand, given the relatively lower cost of capital to the large landowner, he is the most favourably situated to adopt the new techniques of the green revolution with their heavy emphasis on capital requisites, such as new seeds, irrigation facilities, fertilizers and insecticides. As subsequent chapters argue, the elimination or reduction of these distortions in factor markets is possible if appropriate economic policies are adopted by the Government and if required institutional, including land, reforms are effected. The result should be a reduction in rural underemployment and unemployment, an increase in agricultural output and a more uniform adoption of farming techniques on farms of similar soil type, climate, etc., regardless of their size.

---

[4] See pages below and Keith Griffin, *The Political Economy of Agrarian Change* (Macmillan, 1974), pp. 67-73; and Bruce F. Johnston and Peter Kilby, *Agriculture and Structural Transformation* (London, O.U.P., 1975), Chap. 8.

[5] L. C. Bell, "The acquisition of agricultural technology: its determinants and effects", *Journal of Development Studies*, vol. 9, 1972, pp. 123-159.

[6] See Griffin, *op. cit.*, Chap. 2; Johnston and Kilby, *op. cit.*, Chap. 8; Chenery *et al.*, *Redistribution with Growth*, Chaps. IV and VI.

Let us summarize the economic efficiency case for a small farmer strategy. Firstly, although there may be some loss of output where it was not possible by institutional change to capture economies of scale, a more than corresponding increase in output could be expected from the reduction in factor market distortions with their associated high levels of underemployment and unemployment. Secondly, there is good reason to believe that small farmers would be prepared to work both more intensively and for longer hours (including making use of their family's labour) than would a rural day labourer. Thirdly, although there may be some tendency for rural savings to decline as a consequece of a more egalitarian income distribution, it needs to be remembered that extra savings would be generated from the higher level of income and output, that there has not only been a tendency to underestimate the savings potential of small farmers, but that, with greater financial incentives, this savings capacity could be expected to increase, that there is considerable scope to increase the mobilization of public savings in rural areas given the political will to do so, and that public rural works programmes based on voluntary labour in a small farmer environment offer considerable scope for capital formation.

All of the above has focused on the economic efficiency aspects of a small farmer development strategy. If one can believe the often-stated intentions of member Governments to secure growth with social justice, an overwhelmingly strong case can be made in market-oriented economies which retain private ownerships of land for a small farmer development strategy. Only by the reduction of factor market distortions and by the adoption of a more uniform pattern of land ownership can a more equitable distribution of income be secured in rural areas. Moreover, the long-term social and political stability upon which economic growth depends may require the adoption of such policies. Finally, the adoption of a small-farm development strategy has important implications for the pattern and type of industrial development likely to emerge in the country concerned. A more egalitarian income distribution in rural areas and the adoption of more labour-intensive types of production techniques would give rise to a demand for more simple intermediate-type capital equipment and for generally more simple and less sophisticated consumer goods products that would be more consistent with the factor endowments and income distribution objectives of developing member countries in the ESCAP region.

2. *Defining the small farmer*

The case for a small farmer development strategy has been argued above and it is now necessary to define more precisely what is meant by a small farmer before proceeding to look at his importance in terms of numbers and contribution to output in the region. Let us first consider the problem of defining a lower limit. How do we distinguish between the 'small' farmer and other groups of rural poor? Given that a reasonable approximation of scale neutrality is obtainable, it would not appear to matter how small the farm unit was as far as efficient agricultural production was concerned. However, this ignores the important fact that some net savings should be possible out of income if our small farmer is to operate a viable enterprise and expand his output and income over time. The minimum size of farm unit, therefore, should be one on which he generates a more than subsistence income or one on which he has the potential to do so once appropriate institutional reforms have been carried out and economic policies adopted to remove factor market distortions.

This definition of the lower limit does not imply the exclusion of all marginal farmers who currently live at or below an officially defined subsistence level. Firstly, the reforms, including land reform and policies mentioned above, should bring large numbers into the viable small farmer category. Secondly, there are many farmers who could not earn a viable income from their land alone but who could supplement this from regular outside earnings. This type of farmer has been of particular historical importance in Japan and, providing he can generate some savings to develop his land, he should be included in our small farmer definition. Finally, what of the small landowners or cultivator who cannot even in a potential sense generate an above-subsistence income? Obviously, measures adopted to assist the viable small farmer will assist him by raising his productivity. In the long run, however, other policies need to be devised which will deal with his situation and that of the landless labourer. Such policies will have to do with an improvement in the general level of economic development which will increase wage and work opportunities in the manufacturing, agricultural and service sectors, with the development of appropriate organizations, such as trade unions, with special employment-creating activities, such as rural works programmes, and with equity or welfare oriented policies which would transfer sufficient command over resources to these people to ensure them what the country concerned believes to be an adequate standard of living.

Before turning to a definition of the upper limit, it is obvious that, in defining a small farmer, the ownership of land is not an essential criterion. It is sufficient that he has access to land in a secure and regularized manner whether as owner, tenant or share-cropper, although, from an income distribution point of view, the greater the number of owner/operators, the more nearly will social justice objectives be obtained.

At the upper limit, no precise general definition of a small farmer is possible. Providing a major objective of a small farmer development strategy is to assist a particular subgroup of the rural poor, namely small farmers, it would seem appropriate for each country concerned to define the upper limit in terms of some income criterion. This would obviously differ both absolutely and relatively, depending upon the level and distribution of income in the country concerned and upon the set of welfare weights adopted. For instance, countries may select some absolute level of income as the cut-off point, or they may choose a measure in terms of relative poverty which looks at the income shares of ordinally ranked groups.

In practice, household and *per capita* income figures are not always available by output sector and it may be necessary to select some proxy for income. One which has been widely used is the unit size of the farm concerned. There are well-known objections to such a procedure in that the productivity of a piece of land will vary according to its physical characteristics, related to climate and locational considerations, the intensity with which it is farmed, and the type of activity it is used for. Nevertheless, in practice this has proven to be the criterion most often used and the following section, which discusses the quantitative significance of the small farmer, makes use of it.

It may also be necessary for policy purposes to distinguish among various subtarget groups within the small farmer category. Thus, one may be concerned with problems of land tenure involving the number and characteristics of landowners, share-croppers, and formal and informal tenants; apart from distinguishing the size of the land unit, one may also wish to distinguish by types and pattern of cropping, stock-raising, etc.; by the use of other than family labour, by the availability and type of irrigation; by the cultural, political and societal characteristics of the type of farmers concerned; by ecological circumstances; by the prevalence of fragmented holdings; or by the extent to which the farmers concerned enter the market economy.

3. *Small farmer definitions in practice: the ESCAP case*

In attempting to translate the desired farm income level for keeping the small farmer in agriculture, one study concluded that "on the basis of Indian experience it should be possible to obtain such an income with a minimum holdings of one hectare or 2.5 acres, provided it is irrigated and operated on modern lines with the use of the new agricultural technology. The equivalent average in areas of assured rainfall would be about 4 acres or about 1.6 hectares, while for semi-arid areas, it would be about 3 hectares or 7.5 acres . . . these figures would be lower for southeast Asia, as agricultural productivity per hectare is higher in countries like Bangladesh, Sri Lanka, Thailand, West Malaysia, the Republic of Korea and Cambodia . . ."[7]

The quantitative indicators used in operational definitions of small farmers in ESCAP developing countries differ from case to case; sometimes only the upper limits of this category are given, in terms of acreage and income, without setting the lower limits and differentiating between potentially viable and non-viable (marginal) farmers. To indicate the variations and the approximate ranges of income and size-holding criteria, let us quote the yardsticks used in the Field Workshops on Small Farmers and Landless Agricultural Labourers sponsored by FAO and organized initially in six ESCAP developing countries.

> "The primary consideration used for classifying small farmers was the size of the farm. In Nepal, farmers with up to 4 bighas (2.5

---

[7] V. K. R. V. Rao, *Growth with Justice in Asian Agriculture* (Geneva, UNRISD), 1974, p. 59.

> hectares) of land in the Taral and 1.75 bighas (1.0 hectare) in the Hills were considered as small farmers . . . In Bangladesh, the small farmers included those who had up to 2 hectares of land. However, they were further classified into (a) subsistence farmers-cum-sharecroppers with holdings of one acre and below, and (b) viable and potentially viable owners with 2 to 1 acre farm holdings.
>
> In India which has an ongoing programme for the low-income groups, the small farmers and landless agricultural labourers were classified on the basis of size of farm and income. The small farmers are those with operational holdings of 5 to 10 acres in terms of dryland (1 acre wet = 2 acres dryland or whose annual income from agricultural and non-agricultural sources does not exceed Rs 2,400.
>
> Marginal farmers are those having 2 to 5 acres in terms of dryland or those earning a gross annual income not exceeding Rs 1,800. Agricultural labourers are those having less than 2 acres dryland or earning less than Rs 1,200 gross per year as wages.[8]
>
> In the same manner, the Republic of Korea classified small farmers . . . as those with less than one hectare and with income below 500,000 won per annum . . . Indonesia and Sri Lanka did not specifically identify the limits of the size of farms of the small farmers."[9]

In the Philippines, in one of the studies on small farmers, these had been rather arbitrarily defined as those operating not more than five hectares of farmland with about two-thirds of their family income derived from their major crop.[10]

In Bangladesh, there is no standard or universally acceptable definition of a "small farmer", although a "small farmer" is often defined in terms of the area of land owned. About five or six years ago, a "small farmer" in Bangladesh was defined as someone owning between one and seven acres of land. Those owning more than seven acres were defined as "large landholders". The latter group was believed to comprise the commercial sector of the rural population, which often controlled rural credit, trading and the processing of agricultural products. But with the introduction of winter irrigation and adoption of high-yielding varieties of crops, particularly rice, and increased cropping intensity, the definition of the "small farmer" merely in terms of land holding is not acceptable as valid. Owing to varying cropping intensities in the different regions of the country, the meaning of "small farmer" also varies widely, rendering it rather difficult to use the terms "small farmer" or "big farmer" with the same meaning and practical implication. Nevertheless, a "small farmer" in Bangladesh is still generally identified as one owning a small land-holding, usually up to seven acres, with considerable region variations. A small farm family receives most of its income from farming and operates the farm mostly with family labour."[11]

From the above-mentioned examples of small farmer definitions that have been used in various ESCAP developing countries, it is obvious that the term "small farmer" may have different meaning and content depending on the content in which it is used. Since the sources of information and statistical data for this *Survey* are related to particular country situations and definitions of the small farmer, it is hardly avoidable that, in the following sections of the *Survey*, the term "small farmer" is used rather loosely.

4. *The significance of the small farm subsector*

This section indicates briefly the quantitative importance of the small farm subsector in Asian agriculture. Since most of the data available refer to the size of operational holdings, data on income levels being much scarcer, the former is used as an admittedly rough criterion. Most of the data refer to the situation in the early 1960s and, as a result, do not reflect changes in the size distribution of holdings which may have taken place in the last decade due to land reform, increasing population pressure on land, etc.

Compared with other parts of the world, Asia is the region with the largest concentration of small holders. Table 1 indicates that, in the early 1960s, out of 97 million holdings in Asia, about 45 million, or 46 per cent, were under one hectare in size, about 21 million or 21 per cent between one and two hectares, and about 20 million or 20 per cent were between two and five hectares.

---

[8] It should be noted that the National Commission on Agriculture subsequently recommended that, for the purpose of identifying the participants in special programmes, the maximum limit of holdings of small farmers should not be above two hectares and of marginal farmers above one hectare. This conclusion was reached on the basis of studies undertaken which have shown that, even in rainfed areas, it would be possible to achieve a desirable level of net income (Rs 2,500 per family) from a holding of about two hectares with land development, application of improved technology and necessary physical inputs: *Interim Report of the National Commission on Agriculture on Reorientation of Programmes of Small Farmers and Marginal Farmers and Agricultural Labourers Development Agencies* (Government of India, Ministry of Agriculture, 1973), pp. 2 and 16-17.

[9] "Papers and Proceedings, Regional Follow-up Seminar on Field Workshops on Small Farmers and Landless Agricultural Labourers, Bangkok, 26-30 August 1974", pp. 30-31: *Asian Survey of Agrarian Reform and Rural Development* (FAO Regional Office, Bangkok).

[10] A. M. Balagot, "A study on financing small farm operations in Mindanao, 1969-1970", N. S. thesis, Department of Agricultural Economics, U.P. College of Agriculture.

[11] Khandker Mahumdur Rahman, "The experience of marketing with regard to small farmers in Bangladesh with particular reference to Comilla Rural Development Programme", unpublished, U.N. ESCAP, 1975.

The holdings in these three size categories comprised respectively 9, 12 and 25 per cent of the total agricultural area, which provides some measure of inequality in land distribution. These regional aggregates, of course, conceal the variations among countries in regard to the significance of the small farmer subsector and table 2 sets out these variations.

It can be readily seen that, in Indonesia, Bangladesh, Sri Lanka and the Republic of Korea, small holdings are a dominant factor in the agricultural structure. In Indonesia, farm households of up to 2 hectares represent about 88 per cent of the total number of farms and cultivate approximately 46 per cent of total area, including areas under estates. The same applies to Bangladesh where farms up to 2 hectares represent 83 per cent of the total number of farms and cultivate about 52 per cent of the total area. In the Republic of Korea, the agricultural sector is comprised mostly of small farms; in 1961, about 88 per cent of all farms were below 2 hectares in size and cultivated 83.5 per cent of the total cultivated area. If farms up to 3 hectares are included, the corresponding figures rise to 99 per cent and 86 per cent respectively. In Sri Lanka, 88 per cent of all holdings were under 2 hectares in size in the early 1960s, but their share in the total cultivated area was considerably lower than in the above-mentioned countries because of the concentration of a large part of agricultural land in the plantation sector.

In the Republic of South Viet-Nam, the pre-revolution structure of holdings was also characterized by the prevalence of small holdings: 78 per cent of all holdings were in the 2 hectare category and cultivated about 36 per cent of the total land area. If holdings under 3 hectares are included, their share increases to about 88 per cent of the total number of holdings and 52 per cent of cultivated area.

In India, Pakistan and Malaysia (West), the precentage share of holdings up to 2 hectares in the total number of holdings ranged between 64 and 70 per cent. The respective share of these in total cultivated area amounted to about 21 per cent in India (1970-71), 15 per cent in Pakistan (1960) and 15 per cent in West Malaysia (1960). In the case of West Malaysia, of course, the low share in total area was due mainly to the large size of the plantation sector which covers more than half of the cultivated land.

Table 1. ASIA[a]: NUMBER AND AREA OF HOLDINGS

Size of holding	*Number of holders (thousands)*	*Percentage*	*Area held (thousand ha)*	*Percentage*
Under 1 hectare	45,123	46.4	21,592	8.6
Between 1 and under 2 . .	20,776	21.4	30,795	12.3
Between 2 and under 5 . .	19,845	20.4	62,529	24.9
Between 5 and under 10 . .	7,401	7.6	51,556	20.5
Between 10 and under 20 .	3,022	3.1	40,676	16.2
Between 20 and under 50 .	834	0.9	22,897	9.1
Between 50 and under 100 .	102	0.1	7,108	2.8
Between 100 and under 200 .	17	0.02	2,817	1.1
Between 200 and under 500 .	8	0.01	2,791	1.1
Between 500 and under 1,000	3	—	1,989	0.8
1,000 hectares and over . .	2	—	6,206	2.5
Total	97,133	100.0	250,960	100.0

Source: FAO, *Report on the 1960 World Census of Agriculture*, vol. V, tables 2.3 and 2.10, Rome, 1971.

[a] Includes, Brunei, India, Indonesia, Iran, Iraq, Japan, Lebanon, Malaysia, Pakistan, Philippines, Republic of Korea, Republic of South Viet-Nam, Sri Lanka, Thailand and Turkey.

Table 2. SIGNIFICANCE OF THE SMALL FARM SUBSECTOR IN SELECTED ASIAN COUNTRIES (COUNTRIES RANKED ACCORDING TO RELATIVE SHARE OF HOLDINGS UP TO 2 HECTARES IN THE TOTAL NUMBER OF HOLDINGS)

	Percentage share in total number of holdings		*Percentage share in total area*	
	Up to 2 ha	*Up to 4 ha*	*Up to 2 ha*	*Up to 4 ha*
Indonesia (1963) . . .	88.3	96.3	46.0 (51.5)[a]	63.8 (71.3)[b]
Republic of Korea (1961) .	88.1	99.2[b]	83.5	86.1
Sri Lanka (1962) . . .	84.0	95.3	31.7 (39.0)[a]	50.0 (61.5)[a]
Bangladesh (1967/68)[c] . .	83.0	—	52.0	—
Republic of South Viet-Nam[d] (1960)	78.1	87.7[b]	35.8	52.0[b]
India (1970/71)	69.7	84.8	20.9	39.4
Malaysia (West) (1960) .	67.3	89.7	15.3 (32.6)[a]	30.1 (63.9)[a]
Pakistan (1960)[a] . . .	64.4	—	15.3	—
Thailand (1963) . . .	47.9[f]	75.4[g]	15.5[f]	42.1[g]
Philippines (1960) . . .	41.4	74.0	11.8	35.0

Source: FAO, *Report on the 1960 World Census of Agriculture*, Rome 1966-1970, vols. 1/a, 1/b, 1/c.

[a] Excluding area under estates.

[b] Up to 3 ha.

[c] *Source: Bangladesh Agriculture in Statistics, Statistics*, Statistical Series No. 1, November 1973, p. 49, Ministry of Agriculture, Government of Bangladesh, quoted from: K. M. Rahman, "The experience of marketing with regard to small farmers in Bangladesh with particular reference to Comilla Rural Development Programme", unpublished, U.N. ESCAP, August 1975, p. 2.

[d] Formerly Republic of Viet-Nam.

[e] Data refer to ownership, not operational holdings; *Source: Land Reforms in West Pakistan*, vol. I, October 1960, p. 250, quoted from a country report on Pakistan by M. Khan in *Organization of Peasants in Asia*, Friedrich-Ebert-Stiftung Workshop Series—Report V, Bangkok, 1974, p. 120.

[f] Up to 2.4 ha.

[g] Up to 4.8 ha.

In Thailand and the Philippines, the share of small holdings up to 2.4 hectares and 2 hectares respectively in the total number of holdings tended to be much lower, 48 and 41 per cent respectively, cultivating about 15 and 12 per cent of total cultivated area. However, in the case of these two countries, the farms in the range of 2 to 4 hectares (in Thailand 2.4 to 4.8 hectares) seem to be very important in terms of both numbers and area. If these holdings are included, the respective shares raise for Thailand to about 75 per cent number-wise and 42 per cent area-wise and for the Philippines to 74 per cent and 35 per cent, respectively.

It should be noted that the holdings in the range of 2 to 4 hectares, although not as important in terms of relative numbers as in Thailand and in the Philippines, are also very significant in terms of cultivated area in other ESCAP developing countries. In India, Indonesia, Sri Lanka and Malaysia, these farms cultimated around one-fifth of the total area.

Another feature of the agrarian structure in Asia is the great number of holdings that are 0.5 hectares or less in size.[12] The numbers of these are greatest in countries with high population pressures on land, although the skewed land distribution pattern is also a contributing factor. Thus, in Indonesia, almost 44 per cent of all holdings were under 0.5 hectares in 1963, numbering more than 5 million. In India, about 33 per cent of all holdings were under 0.5 hectares in size and, in the Republic of South Viet-Nam, their share was about 37 per cent. The size of the plots actually operated was further reduced by fragmentation which, already fairly widespread in Asia, tends to increase over time as a result of population pressures.

For India, data are given on the size distribution of operational holdings in table 3. They indicate certain trends in relative weights of holdings of various sizes over the period 1953/54-1970/71. It can be seen that, in the 1950s, the major change that occurred was a considerable reduction in the area commanded by holdings in the size-group 50 acres and above from 17 to 12 per cent of total area. "It is possible that the combined operation of land reform measures and inheritance laws may have reduced excessive ownership by a small minority."[13] On the other hand, the share of holdings in the size groups below 15 acres in the total area increased, most significantly in the case of holdings of 1-5 acres in size.

In India in the 1960s, the most conspicuous change was a sharp increase in the number of holdings of up to 5 acres in size: in 1970/71, these accounted for 70 per cent of all holdings, compared with 63 per cent in 1954-1960. However, their share in total operated area increased only slightly from about 19 to 21 per cent. Holdings above 25 acres maintained their share in area of about 31 per cent, although their relative weight in the total number of holdings declined from about 5 to 4 per cent. This trend towards more unequal distribution of land, with an increasing number of farmers falling into the group of small and marginal farmers, reflects the growing polarization which has taken place in the rural area in India and which is in part due to the adverse social effects of the introduction of the new technology.

It should be observed that most of the data used in this section refer to operational holdings, disregarding the form of tenure under which the holdings are operated. As a result, the data tend to conceal an even higher degree of concentration of control over the land resources than would be revealed by using the criterion of ownership.

The significance of the small farm subsector in agricultural output is difficult to estimate. Data on output are usually not broken down according to the size-classes of farms. Nevertheless, from the sample surveys which were carried out in respect of the yields per acre on farms of various sizes, it appears that small farms tend to achieve higher yields per hectare. Therefore, it is quite plausible to conclude that the share of small farms in total output would be at least equal, if not larger than their share in total cultivated area. However, as far as the share of small farmers in the marketed surplus is concerned, this is likely to be much smaller on account of the higher proportion of produce used for meeting subsistence needs. Again, this is extremely difficult to quantify. The section on marketing of this *Survey* contains data on this aspect which indicate that, in general, the marketed surplus tends to increase with the size of the farm, although in some instances the marketed portion of the small farmers' output can be quite high as a result of "forced marketing" or distress sales necessitated by the basic cash obligations of the producers.[14]

The marketed surplus[15] of small farmers, however, does not fully reflect the real contribution of the small farmer to the flow of output that ultimately enters the market. In the case of share-cropping arrangements, up to 50 per cent of output is surrendered by the tenant to the landlord in many

---

[12] FAO, *Report on the 1960 World Census of Agriculture,* Rome 1966-1970, vols. 1/a, 1/b, 1/c.

[13] T. R. Sundaram, "Resource position of small farmers", in *Problems of Small Farmers* (Bombay, Indian Society of Agricultural Economics, 1968), p. 23.

[14] See chapter 4 below.

[15] Defined as part of farm output which is actually sold on the market irrespective of the needs for home consumption and other requirements, such as payment in kind to labour or landlord.

Table 3. INDIA: DISTRIBUTION OF OPERATIONAL HOLDINGS AND OF AREA

Size-group (acres)	Operational holdings							Area operated						
	1953/54			1959/60			1970/71	1953/54			1959/60			1970/71
	Estimated number (thousands)	Percentage		Estimated number (thousands)	Percentage		Percentage	Estimated area (thousand acres)	Percentage		Estimated area (thousand acres)	Percentage		Percentage
Less than 1 . .	8,744	19.72	60.00	9,495	19.42	62.96	69.67	3,576	1.07	15.44	4,281	1.32	18.88	20.86
1 — 5 . . .	17,866	40.28		21,281	43.54			48,000	14.37		57,076	17.56		
5 — 10 . . .	8,751	19.73		9,218	18.85		15.15	62,165	18.62		64,819	19.95		18.51
10 — 15 . . .	3,438	7.75	14.40	3,726	7.62	13.45	11.25	41,864	12.53	29.32	45,012	13.85	30.47	29.75
15 — 25 . . .	2,949	6.65		2,848	5.83			56,068	16.79		54,004	16.62		
25 — 50 . . .	1,922	4.33	5.87	1,791	3.67	4.74	3.92	65,501	19.61	36.62	60,175	18.52	30.70	30.88
Above 50 . . .	684	1.54		523	1.07			56,819	17.01		39,602	12.18		
Total	44,354	100.00		48,882	100.00		100.00	333,993	100.00		324,969	100.00		100.00

Source: *The National Sample Survey: Eighth and Sixteenth Rounds,* quoted from T. R. Sundaram, "Resource position of small farmers" in *Problems of Small Farmers* (Bombay, Indian Society of Agricultural Economics, 1968), p. 22; *All India Report on Agricultural Census 1970–1971,* vol. I (Ministry of Agriculture, Government of India, 1974), quoted from B. Chattopadhyay's paper on "Foodgrain output trends, technological change and the small farmer in India", unpublished, United Nations Economic and Social Commission for Asia and the Pacific, August 1975.

ESCAP developing countries.[16] This part of their output finds its way into the marketing system via landlords.

One would like to indicate the relative magnitudes of various groups — small farmers, marginal farmers, landless labourers — of the rural poor in the ESCAP developing countries. However, the available data are rather sketchy and deficiencies in definitions make aggregation difficult. Some idea of the composition of the rural poor can be seen from Indian data. "Of all rural households, small and marginal farmers represent 52 per cent and agricultural labourers 24 per cent . . . the bulk of them have remained poor, living below minimum standards of consumption . . . data on the distribution of ownership holdings by size-classes reveal that the number of ownership holdings in the country in the range of up to 1 hectare is about 35 million while the number in the range of 1 to 2 hectares is about 11 million. This gives a ratio of about 3:1 in respect of ownership holdings of marginal and small farmers."[17] It can be concluded that the most numerous group among the Indian rural poor are marginal farmers, followed by agricultural landless labourers and small, potentially viable farmers.

---

[16] Griffin, *op. cit.*, p. 93.

[17] *Interim Report of the National Commission on Agriculture . . .* 1973, *op. cit.*, pp. 23-24.

Chapter 3.

TECHNOLOGY AND THE SMALL FARMER

1. *Introduction*

Many early reports concerning modern agricultural technology discussed the rural farmer in developing countries in the abstract. The characteristics which this abstract farmer had were often not explicit. However, it was implied that he was relatively poor, relatively price-responsive, and relatively integrated into his community's social structure. Given these general characteristics, it was assumed that new technological innovations need only prove economically worthy in order for them to be utilized.

Most reports evaluating modern technological breakthrough in agriculture, such as the recent case of the green revolution technology, were discussed relative to the general rural farmer. For instance, an early evaluation of the green revolution by the ESCAP (ECAFE) secretariat drew attention to the huge economic outlays which would have to occur in rural areas in order to implement a successful green revolution strategy.[1] The ESCAP report gave mention, in passing, to the problems of the resourceless small farmer confronted with the new technology by suggesting that he would be placed in a disadvantageous position on account of the larger outlays that the new technology demanded.[2] However, the report focused on macro-economic issues which might not always be relevant to the problems of the small farmer. It was not until recently when equity problems in the rural areas appeared to become so serious and conspicuous that emphasis shifted to the problems of the small farmer. These problems were viewed as a matter of resource scarcity and discussed in both social and economic terms:

> "Wealth, particularly landed wealth often is accompanied by political influence, and this in turn may be strengthened by the inherited status that accompanies a tribal chief, the village headman or the landed gentry. In other words, status, political influence and economic power often are joint attributes of an individual or family, and these can be used to ensure privileged access to the scarce means of production."[3]

At the mid-point of this decade, the time has arrived to redress the over-emphasis paid the general farmer by focusing on the ability of the relatively resourceless small farmer to adopt the modern technological inputs associated with the green revolution. And the fact is that the green revolution breakthroughs are the primary technological avenue which may increase the welfare of the majority of small farmers.[4]

The following discussion considers the problem of the small farmer and the green revolution technology from two perspectives. Firstly, from the point of view of his specific experience with it; secondly, by a more general analysis of the economic and social constraints associated with the diffusion of technology. In the first part, the experience is divided into sections corresponding to the major technological innovations associated with the green revolution: high-yielding variety (HYV) seed, fertilizers and pesticides, irrigated water, and mechanization. In the second part, the constraints are divided into sections detailing the major personal and external constraints to the diffusion of technology to the small farmer: farmer characteristics, risk, peasant community, research institutions, extension activities.

What is to be found is a twofold picture; one rather pessimistic concerning the small farmer's current patterns of adoption and prospective ability to adopt modern agricultural technology given current institutional arrangements. The other picture is much more hopeful as focus shifts to the small farmer's ability to use the technology after he has surmounted the socio-economic constraints to its adoption. In both cases, the solution to the small farmer's problems seems to reside in institutional reform; a reform specifically designed to compensate for the small farmer's economic and social weaknesses by ensuring knowledge about and access to technological factors of production. Without such reform, the small farmer will likely lag behind in any effort to increase his welfare through gains in production.

---

[1] "Planning strategies in agriculture", *United Nations Economic Bulletin for Asia and the Far East*, vol. XX, No. 2, September 1969.

[2] *Ibid.*, p. 26.

[3] Keith Griffin, *The Green Revolution: An Economic Analysis* (Geneva, UNRISD, 1972), pp. 9-10.

[4] Many small farmers are involved in other agricultural pursuits, such as poultry, pig, cattle and sheep raising activities. The technology used in such pursuits has changed little for decades. Lack of data does not allow a thorough examination of problems associated with these pursuits. The introduction of new organizational forms through which these pursuits can be improved, however, are likely to be similar to those discussed in chapter 7 of the *Survey*. For information concerning some aspects of reforms felt necessary to improve these activities, see: (a) Government of India, Ministry of Agriculture, *Interim Report of the National Commission on Agriculture on Poultry, Sheep and Pig Production through small and Marginal Farmers and Agricultural Labourers for Supplementing their Income*, August 1973 and (b) Government of India, Ministry of Agriculture, *Interim Report of the National Commission on Agriculture on Milk Production through Small and Marginal Farmers and Agricultural Labourers*, December 1971.

2. *Experiences of the small farmer with modern agricultural technology*

Agricultural technology is a continuing part of any farmer's productive matrix.[5] Recent technological breakthroughs focusing on the alteration of the biological characteristics of wheat, rice and other minor grains have added new elements to that matrix. There is clear evidence that such technological breakthroughs have not had widespread beneficial effects in the rural areas in the region. It appears that some farmers have rapidly profited from the new technology, while others, having less resource endowments, have lagged behind. This chapter of the *Survey* will consider the problem of modern technological usage from the standpoint of the experience of those who have lagged behind, in particular, the small farmers, by discussing their experience with four modern technological and complementary inputs; HYV grains, fertilizers, irrigated water, and mechanization. These four inputs comprise the primary agricultural technology commonly referred to as the technology of the green revolution.

(a) *The high-yielding varieties (HYV)*

Since the introduction of dwarf Mexican wheats to West Pakistan in 1963 and India in 1965, followed shortly thereafter by the introduction of dwarf rice from the International Rice Research Institute (IRRI) at Los Banos, the Philippines, an optimistic view developed that a large expansion in food production and a consequential improvement of human welfare world-wide would occur. The "Green Revolution" became the slogan for this optimism.

As table 4 indicates, in many countries of the region the area planted in HYV grains continues to be enlarged. From 1965/66, when the use of HYV grains were virtually unknown in the region, until 1968/69 and again 1970/71, the diffusion of HYV grains was remarkable. From 1970/71 until 1972/73 the same trend continued, although in a few countries of the region there was some decline in their spread, mostly in HYV rice.

The evidence of such a rapid spread of HYV grains should be viewed against the proportionate share which these grains have in relation to traditional varieties in the region. Generally this proportion is relatively low. In 1972/73, Bangladesh had 11.1 per cent of its cropland planted in HYV rice.[6] Figures of a similar nature apply to Indonesia (18.0 per cent in HYV rice), and the Republic of Korea (15.6 per cent in HYV rice). In 1972/73, Burma and Sri Lanka had only 4.2 and 2.5 per cent respectively of their land in HYV rice, while Malaysia had 38.0 per cent of its cropland devoted to the

Table 4. ESTIMATED AREA PLANTED TO HIGH-YIELDING VARIETIES OF RICE AND WHEAT

(thousand hectares)

	Wheat			*Rice*		
	1968/69	*1970/71*	*1972/73*	*1968/69*	*1970/71*	*1972/73*
Afghanistan	122.0	232.0	450.0	—	—	—
Bangladesh	8.4	13.5	21.4	152.2	460.1	1,069.6
India	4,792.7	6,480.0	10,236.8	2,681.0	5,589.2	8,639.1
Iran	10.0	250.0	298.0	—	—	—
Nepal	53.8	98.2	170.3	42.5	67.8	177.3
Pakistan	2,387.7	3,128.5	3,338.8	308.0	550.4	643.5
Indonesia	—	—	—	198.0	913.0	1,521.0
Burma	—	—	—	166.9	190.9	199.2
Malaysia	—	—	—	98.1	164.6	217.3
Philippines	—	—	—	1,012.8[a]	1,827.0	1,752.0
Republic of Korea	—	—	—	—	—	187.0
Sri Lanka	—	—	—	7.0	29.5	17.6
Thailand	—	—	—	—	115.0	350.0

Source: Dana G. Dalrymple, *Development and Spread of High Yielding Varieties of Wheat and Rice in the Less Developed Nations*, US Department of Agriculture, Washington, D.C., 1974.

[a] Unofficial estimate.

grain. The proportionate share of cropland growing HYV wheat seems to be somewhat higher than for rice. This may be due to the greater biological stability of HYV wheat over rice and the fewer inputs it needs to prove productive. In 1972/73, Nepal, Pakistan and India had 65.1, 55.9 and 51.5 per cent respectively of all wheat land cultivating HYV wheat. Shares of about 20 per cent were common for Afghanistan and Bangladesh.

Other HYV crops, such as maize, sorghum and millet, have not received the same acceptance by farmers as rice and wheat in those areas where traditional varieties are widely cultivated. Pakistan, for instance, planted all three of the above-mentioned grains in 1969, with only a small improvement in production noted.[7] In India, where 90 per cent of world production of millet and sorghum is grown, only 7 and 8.5 per cent respectively of the total millet and sorghum crops were planted in the high-yielding varieties. Yet in other areas where traditional varieties are not established, the spread of HYV minor grains have been rapid. For instance, most maize production in the Republic of Korea and Thailand comes HYV maize.

Information concerning other aspects of HYV grains is far more sketchy than that presented above. As regards HYV wheat, there has been an undoubted trend of rising yields in India and Pakistan. Yet, it is most difficult to determine how much of this success is directly attributable to the introduction of HYV wheat, as the use of other complementary inputs, such as fertilizers, rose as well. HYV rice has shown less success in terms of yield than HYV wheat, but there has been a definite, albeit small, improvement in production noted for this crop.[8]

While it is clear that HYV grains have contributed to recent growth of the agricultural sector, if only indirectly by emphasizing the use of complementary inputs, their very success has generated a number of questions concerning the future role that HYV grains could play in further advancing agricultural productivity. Many of these questions have to do with the HYV package of complementary inputs which is costly, hence requiring the farmer who adopts it to have moderate capital resources, and which at present physically limits the area in which HYV grains can be optimally grown. In many cases, these requirements have magnified problems of income distribution in the agricultural sector.

All HYV grains have inbred biological properties which contribute to their ability to produce high yields. The two primary biological characteristics of these varieties have been their high responsiveness to plant nutrients and their ability to resist lodging. That is, they have dwarfed stems which allow more of the plant-nutrient to be applied to the production of grain and also give greater ability to bear heavier grain clusters (panicles). Other biological characteristics of HYV grains include a shorter growth cycle than traditional varieties (permitting them to be more flexibly used in multiple cropping), a heavy dependence on correct irrigation, an upright leaf growth which facilitates photosynthesis and a variety of inbred disease and insect resistant properties.

The above characteristics, however, limit the environment in which the HYV grains can optimally produce. This implies that a policy directed towards a modernization of the agricultural sector through the introduction of HYV grains may lead to failure unless complementary inputs associated with the HYV grains are also provided.[9] Two of the most important of these inputs — irrigation water and fertilizers — are discussed below.

Water supply and control are of utmost importance because together they determine the amount of plant nutrient that the HYV grain can take in.[10] It is commonly thought that the ideal water supply for HYV grains is plenty of water at the time of rooting, shallow water at the stage of sending out grains-bearing substems from the roots (tillering), plenty of water during the reproductive growth period, and declining supplies during the ripening period.[11] A constraint such as this has led most countries to introduce HYV grains in irrigated areas where water supply and control would be most assured. However, the irrigated areas have not always been equipped with a water supply and

Table 5. YIELDS OF RICE VATIETIES PLANTED IN SAN BARTOLOME, TARLOC, PHILIPPINES, 1965, 1967 AND 1969 WET SEASONS

Year	*Rice yield*			*Nitrogen applied (kg per ha)*
	HYV grains[a] *(kg per ha)*	*Traditional grains (kg per ha)*	*Increased yield of HYV over traditional grains (%)*	
1965	—	1,700	—	10
1967	2,800	2,200	27.3	22
1969	3,400	2,700	25.9	34

Source: Derived from "Agricultural economics", in *Annual Report 1970,* International Rice Research Institute, Philippines, p. 182.

[a] IRRI varieties.

---

[7] FAO, *Monthly Bulletin*, February, 1975.

[8] See FAO, *Production Yearbooks*, various years.

[9] See John W. Mellor, *The Economics of Agricultural Development* (Ithaca, Cornell University Press, 1970), p. 224, ff.

[10] Palmer, *Science and Agricultural Production*, UNRISD, 1972, p. 31.

[11] *Ibid.*, p. 54.

control system which can follow the ideal prescription detailed above.[12]

The increased ability of HYV grains to take in nutrients has already been discussed. The relationship betwen fertilizers and grain can be seen more clearly from table 5 above. This table is based on data from a three-year field investigation of ten randomly-picked farms in one area of the Philippines.

The data presented in table 5 indicate that, with similar applications of nitrogen and other inputs, the HYV grains gave an average increase in yield of about 26 per cent over traditional varieties. Under non-controlled conditions, however, it is likely that the HYV grain yield increase would be even greater as a result of the better management of the HYV grains by innovative farmers and the better biological characteristics of the grains themselves. Nonetheless, it should be noted that, with proper and increasing application of fertilizers, the traditional varieties increased their yield by 58.8 per cent, that is by 1,000 kg per hectare, during the three-year period. It should also be noted that an increasing amount of nutrient is a prerequisite in order to maintain high productivity for either traditional or HYV grains, but especially for nutrient-hungry HYV grains.

Recognizing that it is most difficult, outside of research stations, to achieve the correct utilization pattern of the HYV package, a debate has developed over the extent to which the package needs to be comprehensive and complementary. The debate is by no means resolved, having now developed into rather polarized positions. On the one hand, total package comprehensiveness is advocated:

> "Some features generally regarded as typical of a dynamic agriculture may be introduced in a traditional agriculture; however, when introduced as single changes in practices, their effect on productivity is usually small. Thus changes in incentives by themselves through a land reform, or introduction of inorganic fertilizers without improved seed varieties, will rarely bring about the major, continuous changes in productivity associated with a technologically dynamic agriculture."[13]

Non-comprehensive or incremental packages, however, are not clearly ruled out. Speaking of the prime role that fertilizers play in agricultural production, another expert argues:

> "What is not always appreciated is the fact that in many countries the present usage of fertilizers is so meagre that great strides can be made in areas with adequate soil moisture to raise yields of traditional cereal seeds by means of this single improvement in crop husbandry. Conversely where there is insufficient soil moisture the adoption of increased quantities of fertilizers, let alone of the new response potential seeds, would prove unproductive."[14]

The implication is that, where environment permits, a non-comprehensive package even excluding HYV grains could be utilized in order to increase the productivity of the farmers in the agricultural sector.

The latter argument seems best to reflect the position of most small farmers. The small farmer after all is a farmer working within a relatively limited resource base owing to the socio-economic constraints surrounding him. His main concern is how to use the piecemeal elements of productivity around him in the most efficient manner and how to increase their use, also probably on a piecemeal basis. Evidence indicates that the small farmer is capable of so allocating his resources if he has an opportunity to do so. The opportunity to do so, however, is more often than not relatively restricted.

An appreciation of the small farmers' restricted opportunities to partake in the "green revolution" technology is presented in the following case studies which are typical of the experience that small farmers have had regarding HYV grains.[15] The case studies also emphasize the positive side of the small farmer's acceptance of the HYV grains, after opportunities are provided for him.

Korean farmers have made heavy use of fertilizers and of labour-intensive methods in rice farming for the past half century. Japonica-type rice varieties dominated Korean rice agriculture throughout centuries of rice culture until 1971 when IR-667, or tongil, was introduced by many Korean farmers. This variety is a product of a joint venture between the International Rice Research Institute (IRRI) and Korean scientists at the Office of Rural Development and the College of Agriculture, Seoul National University. Whereas it used to take nearly 15 years to develop a new rice variety with the potential of increasing yield by 10 to 15 per cent, tongil, with a much higher yield potential (30 to 35 per cent over local varieties) was introduced in 1971 after only six years of systematic endeavour by breeders.

---

[12] See the section below on irrigation facilities and water management.

[13] Mellor, *op. cit.*, p. 224.

[14] Palmer, *op. cit.*, p. 9.

[15] There is a burgeoning amount of literature on HYV grains and their acceptance by farmers. For more information, see Keith Griffin, *op. cit.*, Palmer, *op. cit.*; and Andrew Pearse, *The Social and Economic Implications of Large Scale Introduction of New Varieties of Food Grain*, Geneva, UNRISD (mimeograph), 1975.

In 1972, the Government of the Republic of Korea inaugurated a country-wide campaign to disseminate this high-yielding variety among rice farmers as a major strategy in achieving self-sufficiency in grain supply. As a result, the acreage of tongil increased rapidly from 2,750 hectares in 1971 to 300,000 hectares in 1974, which represents some 25 per cent of the total area of paddy land.

However, the rates of acceptance have differed among geographical regions and among individual farmers. It has become evident that the southern areas are more suitable for this new variety than the northern areas because of the biological characteristics of the plant and that the larger farmers are more responsive than the small farmers in adopting it.

Table 6 presents data concerning the acceptance, productivity and sale of tongil between different sizes of land holdings. The data are derived from a 12-village survey conducted in 1974, with 20 farms selected from each village. One half of the villages were assisted by change agencies and are designated as Increased Adoption Villages (IAV). The other half of the villages obtained little external assistance and are designated as Initial Stage Villages (ISV).

In the IAV, the small farmers have adopted a higher perecentage of tongil per area than the larger farmers. That is, small farmers who adopt tongil cultivate it more intensively. However, there is no significant difference in the yield of tongil per land unit among the different sizes of land holding. This result is probably due to the introduction of collective cultivations,[16] heavy application of fertilizer by all farmer classes and intensive and systematic technical guidance by extension workers. It is also notable that tongil has higher rates of commercial sale than local rice varieties for all classes of farmers, but especially larger farmers. Large farmers sell almost all their stock of the new rice variety, while smaller farmers consume a considerable amount of theirs.

By way of contrast, in the ISV, where tongil is spreading without intense promotional activity, larger farmers maintain a larger percentage of their land in tongil than do smaller farmers. Larger farmers also have slightly, but not significantly, larger yields of tongil per hectare than do small farmers. In ISV, the rate of commercialisation, as expressed in terms of the percentage of rice output for sale, also tends to be lower for tongil than for traditional varieties, except for the class of farmers with 1.0 to 2.0 hectares. Finally, larger farmers tend to consume more tongil than smaller farmers, which may be due to the price of tongil being lower than that of traditional varieties.

Thus, the two village types differ in many ways. Obviously the smaller farmer is more integrated in the IAV than in the ISV. He is also more of a commercial farmer in an IAV. Where both types of villages are somewhat similar is in the relatively small amount of land devoted to the cultivation of tongil, though more so in the ISV. Moreover, there is a similarity in yield per hectare in each village type which probably results from the availability and utilization of the complementary inputs related to tongil and successful extension efforts informing farmers of all land classes how to optimally cultivate the new seed, especially in the IAV.

Table 6. COMPARISON OF AREA PLANTED, YIELD, CONSUMPTION AND PERCENTAGE OF SALE OF TONGIL BETWEEN SIZE OF HOLDING AND BETWEEN PROGRAMME AREAS, 1974

Variable	*Under 0.5 ha*	*0.5 to 1.0 ha*	*1.0 to 1.5 ha*	*1.5 to 2.0 ha*	*2.0 ha and above*	*Average*
Increased Adoption Villages (IAV)						
Multiple cropping index of paddy land .	172	145	128	116	107	129
Percentage of farm area planted in tongil	77	73	55	25	31	52
Yield of tongil (metric ton/ha) . . .	5.10	5.16	5.22	5.34	5.22	5.22
Percentage of rice for sale:						
tongil	74	76	83	95	93	85
other varieties	8	9	29	66	69	37
Per capita consumption of tongil (kg) .	93	84	67	19	47	73
Initial Stage Villages (ISV)						
Multiple cropping index of paddy land .	159	122	128	121	110	127
Percentage of farm area planted in tongil	7	14	19	15	23	16
Yield of tongil (metric ton/ha) . . .	4.98	5.25	5.34	5.37	5.16	5.28
Percentage of rice for sale:						
tongil	10	37	62	62	47	45
other varieties	31	38	47	60	65	47
Per capita consumption of tongil (kg) .	23	46	51	58	79	61

Source: Adapted from the data collected by the Office of Rural Development in January 1975.

---

[16] J. H. Lee, "The effects of institutionalized integration on the rice productivity growth in Korea", Ph.D. thesis, Seoul National University, February 1975.

The conditions which the farmers considered important in deciding whether to expand the land area under HYV are given in table 7.

Viewing these recommendations by size of holding, small farmers demonstrated deep interest in improving credit systems and upgrading the quality of extension services, while large farmers showed more concern about improving the quality of rice in order to meet the standards of consumers. Clear contrasts between small and large farmer interests are evident here: the small farmer seeing his advancement in terms of institutional support, while the larger farmer sees his in terms of strengthening standards for market expansion.

The Indian experience with HYV indicates that, in rice, the HYV base remains extremely narrow. Available evidence also suggests that the breakthrough in wheat is perhaps going to be of a once-only kind as output and productivity have tended to stagnate at the peak levels of 1970/71 over the past few years. One of the main reasons of this twofold phenomenon — the narrow base for HYV rice and the probable unimodal character of wheat output — is the tendency for the small farmer to lag behind in the use of HYV technology owing to the resource constraints under which he operates. Although adequate data on the experience in the 1970s are not yet available in a form which can be reported here, the relationship between farmer adoption of the HYV package and holding size for wheat and rice *(rabi)* during the period 1967/68-1969/70 has been investigated in detail. During this period, the results of investigations made in several states in India which principally cultivate HYV grains indicate that the adoption rate of HYV grains varies directly with the size of land holdings.[17]

On the positive side, the small farmer has been found to be quite efficient in his use of modern inputs after he has made his decision to adopt HYV grains. Recent evidence summarized in table 8 indicates that there is an inverse relationship between the farm size of an adopter of HYV grains and the proportion of farm area committed to them. This implies that, after deciding to adopt new technology, the small farmer employs it quite intensively.

Table 7. RECOMMENDATIONS FOR EXPANSION OF HYV MADE BY FARMERS, 1974

Recommendation	*Under 0.5 ha*	*0.5 to 1.0 ha*	*1.0 to 1.5 ha*	*1.5 to 2.0 ha*	*2.0 ha and above*	*Total (%)*
Expansion of production credit . . .	12	29	27	12	35	115 (25)
Better quality of extension service . .	12	34	26	14	17	103 (22)
Improved quality of HYV for consumers' tastes	7	17	18	13	21	76 (17)
Free markets for fertilizer	7	17	18	10	10	62 (14)
Higher government rice purchasing price	3	17	18	10	8	56 (12)
Realistic government grading standards	2	8	6	5	10	31 (7)
Land improvement	1	7	3	3	2	16 (3)
Total	44	129	116	67	103	459(100)

Source: Government of the Republic of Korea, Office of Rural Development.

Note: There were 11 categories in the original list. Four have been omitted from the list as they only accounted for 6 per cent of the total recommendations. They were: expansion of prizes awarded for record yield (2%); increased quantity of rice purchased by the Government (2%); better quality of chemicals (1%); and careful selection of growing area (1%). The table has been revised accordingly.

Table 8. PROPORTION OF FARM AREA COMMITTED TO FOUR HYV GRAINS BY SMALL AND LARGE FARMERS IN INDIA

Crop	*Small farmer*[a] *(% area)*	*Large farmer*[b] *(% area)*	*Percentage difference (large-small)*
Wheat	47	35	—12
Paddy (*kharif*) . .	18	10	—8
Paddy (*rabi*) . . .	40	28	—12
Millet	61	44	—17
Maize	64	24	—40

Source: Programme Evaluation Organization, Planning Commission, Government of India.

[a] Smallest three decile groups, i.e. lowest 30 per cent of all-India sample.

[b] Highest decile group, i.e. highest 10 per cent of all-India sample.

Table 8 suggests that small farmers commit 47 per cent of land area to HYV wheat, while only 35 per cent is committed by large farmers. Corresponding relationships are found for paddy *(kharif* and *rabi),* millet and maize. The explanation of the greater commitment to HYV grains by small farmers may lie in the expectation of a higher income which the grains may provide. Such intense adoption of HYV grains, it should be noted, is made in spite of the fact that the cost of modern inputs per unit of output are about the same for each of the decile groups under consideration. For instance, for the smallest 30 per cent of the farm size groups, the unit input costs by farm size for wheat was Rs 12 during the period under consideration. It was Rs 14 for the middle 30 per cent, Rs 15 for the next 30 per cent and Rs 13 for the largest farm size group.[18] A similar relationship is found for unit input costs for paddy *(kharif* and *rabi).*

---

[17] From data drawn from the Programme Evaluation Organization, Planning Commission, Government of India, in Boudhayan Chattopadhyay, "Foodgrains output trends, technological change and the small farmer", ESCAP consultant paper, August 1975, table 4.1.

Comparison of yields for HYV rice in the Indian Intensive Agricultural Development Programme (IADP) districts, which are committed to the promotion of HYV grains, when averaged over the period 1966/67-1970/71, suggest that the small farmer has a lower yield than the larger farmer. These data are presented in table 9. With the exception of the Jammu, Mandya and, to some extent, Surat-Bulsar districts, there is a clear indication that large and medium farmers have higher average yields than small farmers. The range of the higher yields is quite variable and it should be noted that, on average, they are not a great deal larger than the yields of smaller farmers. The reasons for the higher yields of medium and large farmers over smaller farmers can be traced to two sources: (a) less adoption of the HYV grains because of land size constraints, but, more importantly (b) the resource constraints under which the small marginal farmer has to operate. This is true, even granting the fact that, when the small farmer adopts, he adopts more intensively.[19]

Table 9. YIELD OF HYV RICE ACCORDING TO LAND HOLDING SIZE IN THE IADP DISTRICTS FOR THE PERIOD 1966/67-1970/71

(quintals/hectare)

District	*Size of holding*			*Percentage increase in average yield over that of small-size holdings by*	
	Small (up to 2 ha)	*Medium (2-4 ha)*	*Large (above 4 ha)*	*Medium-size holdings*	*Large-size holdings*
Kharif rice					
W. Godavari	30.2	32.3	32.0	7	6
Shahabad	15.8	16.6	16.0	5	1
Surat-Bulsar	21.8	23.0	21.2	5	(—)3
Jammu[a]	19.8	18.1	22.5	(—)9	14
Palghat	27.5	29.7	33.6	8	22
Raipur	15.0	17.0	18.7	13	25
Mandya[a]	37.0	35.2	32.3	5	(—)13
Sambalpur	13.7	16.5	16.3	20	19
Thanjavur	20.6	22.3	23.8	8	16
Burdwan	22.1	24.8	23.5	12	6
Rabi rice					
W. Godavari	29.1	30.9	31.5	6	8
Alleppay[a]	21.8	23.7	27.0	9	24
Sambalpur	24.2	24.8	27.2	2	12
Thanjavu[a]	14.2	14.8	15.0	4	6

Source: Expert Committee on Assessment and Evaluation, Ministry of Agriculture, *Performance of High Yielding Varieties,* 1966/67 to 1970/71, monograph No. 2 (mimeo.), New Delhi, 1973.

[a] Average for the years 1967/68 to 1970/71.

The reasons for non-adoption of HYV grains by small farmers was considered in the 25th Round of the National Sample Survey for 1970/71, which was specially weighted to sample the lowest decile land-holding group of farmers.[20] The survey revealed that the small farmers see resource constraints as the main hindrance to achieving better production through the adoption of HYV grains.[21] The reasons given by small farmers for non-adoption of HYV grains were fourfold: lack of adequate knowledge; lack of conviction about benefits; the non-timely availability of inputs; and inadequate finance.

All four factors are directly related to institutional supports, such as extension services, input marketing channels, credit and facilities. Inadequate knowledge was obviously important in explaining the extent of non-adoption by the small farmer. As many as 34.5 per cent of the small farmers in Madhya Pradesh, 32.3 per cent in Orissa, 31.3 per cent in Rajasthan and 30 per cent in Tamilnadu listed inadequate knowledge as the main reason for non-adoption. In the agriculturally advanced Punjab, however, only 10.5 per cent thought this to be the main reason.

Lack of conviction concerning the benefits of HYV grains arose from the fact that predicted production levels were not realized in spite of higher input costs. Some 40 per cent of farmers listed the first reason, and even in the advanced Punjab as many as one third of the small farmers reported a discrepancy between realized and anticipated yields. No small farmer in Punjab, however, thought the cost was prohibitive. On the other hand, prohibitive cost was the main constraint mentioned by 33.5 per cent of the small farmers in Tamilnadu, 32.6 per cent in Uttar Pradesh, 30 per cent in Gujarat, about 28 per cent in Maharashtra and Mysore, 27 per cent in Madhya Pradesh and 25.7 per cent in Rajasthan. This underlines the inadequacy of the information which the farmers have concerning the proper use of the HYV grains and, perhaps, the extent of complementary input supply constraints, both of which contribute to increasing costs of using the new technology.

The third factor listed, the timely availability of inputs, indicated that the non-availability of seeds or "other inputs" when required was a most important problem. "Other inputs" were not detailed, but from the replies, it appears that lack of water may be the major problem since states with large drought-prone areas returned a high percentage of response under this category.

---

[18] Programme Evaluation Organization, Planning Commission, Government of India.

[19] See tables 6 and 8.

[20] Mostly small and marginal farmers cultivating less than 2 hectares of land.

[21] S. M. Pandey, "New farm technology and small farmers", *The Economic Times,* New Delhi, 25 and 26 August, 1975.

The final factor listed, inadequacy of finance, shows that as many as 40 per cent of the non-adopters or partial adopters thought this was a major constraint. This was so even in the Punjab. In view of the price hikes in fertilizers, diesel oil, etc. over the last few years, this factor must have become even more important.

Finally, questions were also devised concerning the extent of satisfaction of small farmer use of HYV grains. Most full adopters reported that they were satisfied with the performance of the new practices. The percentage of those satisfied exceeded 90 per cent in Gujarat, Punjab, Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh and Karnataka. The highest percentages of dissatisfied among the full adopters were in Tamilnadu (26 per cent), followed by Orissa (11.8 per cent) and Karnataka (9.4 per cent). These full adopters, however, may have been inefficient adopters. The criteria for "satisfaction" used in the survey do not necessarily correspond to increases in income. However, 96 per cent of the adopters in Punjab reported an increase in income, followed by 95.6 per cent in Madhya Pradesh. Thirty-two per cent of the adopters in Tamilnadu, however, reported no increase in income, followed by 23.5 per cent in Orissa, 15 per cent in Karnataka, 14.8 per cent in Uttar Pradesh and 11.8 per cent in Maharashtra. This may be due to poor cultivating conditions or to an improper adoption of the package.

(b) *Chemical fertilizers*

Of the important technologies available to the small farmer, one of prime importance is chemical fertilizers. Chemical fertilizers have only recently been introduced into the ESCAP region,[22] but they have been well received as can be demonstrated by the fact that some 1,602,000 metric tons of nitrogenous fertilizers were imported by developing regional member countries in 1973/74.[23] In addition, over 2,170,000 metric tons of nitrogenous products were produced by regional member countries in the same year.[24]

Contributing to rapid acceptance of chemical fertilizers by farmers was the high benefit/cost ratio, even with the recent steep increase in fertilizer price. Afghanistan's benefit/cost ratio of fertilizer use on wheat is one of the lowest in the region, but it is currently 1.2.[25] The benefit/cost ratio for fertilizer application is much higher in Bangladesh and Pakistan where the current ratios are 4 and 2 to 2.5 respectively. An example of the profits that a farmer can achieve in various crops given high benefit/cost ratios is presented for India in table 10.

Field studies, where soil was tested and recommendations for fertilizer application adopted, show that the range of profit in India is wide indeed. Table 10 indicates that such profit ranges from Rs 8.75 to Rs 1.60 for each rupee invested. Table 10 also indicates that fertilizer applied to paddy in the dry season *(rabi)* brings a larger return than that applied to wet season *(kharif)* paddy. This is likely due to the greater stability of environmental conditions in the *rabi* season, which contributes to less risk in the fertilizer usage during this period. Potatoes and jute in Orissa and West Bengal also have high profit per unit invested. This may be due to the little use of fertilizers on these crops.

Studies which have investigated the rate of return for investment in fertilizers, where only general recommendations were made for fertilizer use, indicate that profit per rupee invested is not as high as for soil test recommendations. It is usually about a third lower, but can be as much as 50 per cent. Nonetheless, positive profit ratios are maintained.[26] Similar field studies for Thailand and the Philippines indicate that the net returns from high fertilizer use accompanied by high weed control are respectively 63 and 34 per cent higher than with low fertilizer use and low weed control.[27] It is clear that application of chemical fertilizers is profitable and, if accompanied by intense cultivation practices (weed control) and soil test recommendations, profits are very high indeed.

With such a demonstrably high economic rate of return for fertilizer use, it is rather surprising to find that it is commonly underutilized by farmers in the region. The amounts of the three basic chemical fertilizers used by farmers, nitrogen (N), potassium (P_2O_5) and potash (K_2O), generally fall far below the recommended application for most countries in the region, as well as far below the amount used in developed economies.[28] The Republic of Korea,

---

[22] See R. W. Herdt and R. Barker, "Possible effects of the fertilizer shortage on rice production in Asian countries", paper No. 74-23, presented at the Asian Productivity Organization Symposium on Interrelationship between Agriculture Inputs Industry and Agriculture, Tokyo, Japan, 26 November – 2 December, 1974.

[23] FAO, *Annual Fertilizer Review, 1974*, table IV. (Statistics refer to FAO classification of the Far East, excluding centrally planned Asian economies).

[24] *Ibid.*, table I.

[25] All figures are from UNIDO/ESCAP, "Regional co-operation in chemical fertilizer" (mimeographed), December 1975, section 1.5(b).

[26] See S. P. Dhua and others, "Experience in farmers field soil testing and fertilizer use", in FAI–FAO *Seminar on Optimizing Agricultural Production under Limited Availability of Fertilizers*, December 1974, New Delhi, pp. 17-18.

[27] See Herdt and others, *op. cit.*

[28] See FAO, *Annual Fertilizer Review, 1974*, table 11 and subsequent discussion. (Japan, for example, uses 155 kg of N, 149.7 kg of P_2O_5 and 129.3 kg of K_2O per hectare). All figures are for fertilizer use on arable land.

Table 10. PROFIT DERIVED FROM EACH RUPEE INVESTED IN FERTILIZER USE ON VARIOUS CROPS IN SEVERAL INDIAN STATES

(in rupees)

State	*Paddy*	*Wheat*	*Suger cane*	*Potato*	*Jute*	*Jowar*	*Cotton*
Assam	—	2.00	—	—	3.90	—	—
Bihar	2.69	2.73	—	2.25	—	—	—
Madhya Pradesh	3.36	3.14	—	—	—	—	—
Orissa	4.81[a]	4.87	—	8.75	7.37	—	—
West Bengal	2.18[a]	2.27	—	5.65	4.14	—	—
Uttar Pradesh	3.55	3.03	4.62	—	—	—	—
Punjab	3.93	2.41	—	—	—	—	—
Haryana	3.86	3.56	6.32	—	—	—	—
Maharashtra	5.51[b]	1.65	—	—	—	2.10	2.22
Karnataka	5.40[b]	3.12	—	—	—	2.60	—
Andra Pradesh	4.01[b]	5.49	—	—	—	—	1.60
Gujarat	—	2.25	—	—	—	—	—
Rajasthan	—	2.30	—	—	—	—	—

Source: S. P. Dhua and others, "Experience in farmers field soil testing and fertilizer use", in FAI-FAO Seminar on Optimizing Agricultural Production under Limited Availability of Fertilizers, December 1974, New Delhi, tables 4, 5 and 6. (Based on soil test recommendations).

[a] Paddy (*kharif*).

[b] Paddy (*rabi*).

the Democratic People's Republic of Korea and Singapore are the only countries in the region where the fertilizer consumption pattern of the developed countries is approximated. The Republic of Korea, for instance, uses 172 kg of nitrogen, 82.1 kg of potassium and 62.8 kg of potash for a total NPK usage of 317.2 kg per hectare. The total amounts of NPK used in Singapore and the Democratic People's Republic of Korea are respectively 272 kg and 209 kg per hectare. Most other countries of the region lie at the lower end of the scale. The total consumption of all chemical nutrients (NPK) by India and the Philippines was only 16.9 kg and 21.2 kg per hectare respectively.[29] Indonesia was slightly better at 26.3 kg per hectare, but Thailand was further below with 11.1 kg per hectare. West Malaysia used 85.8 kg of total nutrients per hectare, but this figure was inflated by the abundant use of fertilizers in the large and efficient plantation sector. Such low use of fertilizers implies that a great majority in the region are producing well within the frontier of their production possibility curve. This suggests that, in view of the high potential profit values from increased use, some effort may be required to attain optimal applications.

Available evidence indicates that the small farmer's use of fertilizer follows the general pattern presented in the preceding paragraphs. There are two basic points that can be made about the small farmer's use of fertilizers. The first concerns his general use of the product, which tends to be of a low order, and the second concerns the efficiency of his use of the product, which also tends to be of a low order.

A recently published study[30] on the use of modern agricultural inputs in the Intensive Agricultural Development Programme of the West Godavari district in India presents data concerning the consumption of fertilizers by small farmers by season and agricultural zones (table 11).

Several aspects of table 11 are worthy of consideration. First, in general, farmers having less than 2.5 acres of land consume less fertilizer per acre than farmers in larger land size categories, regardless of the season or the agricultural zone in which their farm is located (column 1). In the delta area, where irrigation is assured, about 77 per cent of the farmers with less than 2.5 acres use fertilizers in the *rabi* (dry) season, but only 56.8 per cent do so in the *kharif* (wet) season. This may be because the crops cultivated in the dry season need a large amount of fertilizer or because there is a greater risk of using fertilizer in the wet season. Small farmers having less than 2.5 acres in the less irrigated uplands area follow the same pattern of fertilizer use. These percentages are much lower than those for the same land-holding category in the delta areas, again a likely consequence of the higher risk factor. Secondly, in the delta areas, the absolute amount of fertilizer used per acre by farmers with under 2.5 acres is less for the wet season than for the dry season (columns 4 and 7). A similar pattern is followed in the uplands area (columns 4 and 7). The intensity of use of fertilizers per acre by the farmer having less than 2.5 acres is greater in the

---

[29] *Ibid.*, table 11.

[30] Waheeduddin Khan and R. N. Tripathy, *Intensive Agriculture and Modern Inputs* (Hyderabad, National Institute of Community Development, 1972).

Table 11. CONSUMPTION OF FERTILIZERS BY SIZE OF HOLDINGS IN WEST GODAVARI DISTRICT, INDIA

(Field crops only)

Size-class (acres)	*Percentage of holding in size-class (1)*	*Users of fertilizer (percentages) (2)*	*Amounts used in rabi season (kg/acre)*		*Users of fertilizer (percentages) (5)*	*Amounts used in kharif season (kg/acre)*	
			N (3)	*NPK (4)*		*N (6)*	*NPK (7)*
			Delta (99.6 per cent irrigated)				
Less than 2.5	24.4	77.3	19.6	28.2	56.8	6.3	6.7
2.5 to 4.99	20.0	91.7	29.5	43.0	63.9	7.6	10.2
5.0 to 7.49	21.1	97.4	28.8	43.2	65.8	9.3	11.8
7.5 to 9.99	13.3	100.0	32.1	49.3	70.8	11.5	16.3
10.0 to 14.99	8.9	93.7	26.7	40.1	81.2	10.9	14.6
15.0 to 19.99	3.9	85.7	26.8	49.6	100.0	10.0	11.1
20.0 to 29.99	5.6	80.0	25.3	45.0	100.0	9.9	14.3
30.0 and	2.8	100.0	29.0	43.5	80.0	13.1	13.1
Over-all	100.0	90.0	27.9	44.1	88.9	10.2	13.0
			Uplands (45.6 per cent irrigated)				
Less than 2.5	9.6	22.2	53.0	60.1	22.2	6.1	6.1
2.5 to 4.99	27.6	46.1	21.4	24.3	26.9	13.7	13.7
5.0 to 7.49	19.2	44.4	32.2	41.2	38.9	7.5	8.3
7.5 to 9.99	5.3	40.0	79.3	87.2	40.0	3.2	3.2
10.0 to 14.99	10.6	60.0	46.5	71.9	40.0	2.1	2.5
15.0 to 19.99	6.4	83.3	57.1	71.5	66.7	8.5	11.2
20.0 to 29.99	13.8	76.9	67.4	76.7	69.2	6.9	8.3
30.0 and	7.5	100.0	26.8	63.4	57.1	23.2	24.6
Over-all	100.0	55.3	42.1	61.7	41.5	12.8	13.9

Source: Waheeduddin Khan and R. N. Tripathy, *Intensive Agriculture and Modern Inputs* (Hyderabad, National Institute of Community Development, 1972), tables 6.4, 6.5 and 3.1.

dry season and follows from the general tendency for farmers in this season to compensate for poor soil and irrigation facilities by applying fertilizers at a time when physical conditions are stable, hence when risk is minimal. It should be noted, as well, that nitrogen is the fertilizer most used by all farmers, small and large alike, regardless of agricultural zone or season (columns 3, 4, 6 and 7).

The data presented in table 11 show that farmers having small acreages use less fertilizers than farmers having larger acreages. Moreover, the use of fertilizers by the smaller farmer tends to be more affected by external conditions, such as the season and the certainty of water supply, than in the case of larger farmers. This is particularly evident during the dry season when the small farmer applies more fertilizer per acre than many larger land holders in his effort to compensate for poor soils and irrigation conditions during a period when risks are minimal.

In the main, however, most small farmers seem to lag behind in the amount of chemical fertilizer used per unit of similar land. Yet this is not the small farmer's only problem: generally, he uses the amount of fertilizer that he can obtain with less efficiency than does the large farmer.

The problem of the efficient use of fertilizers by small farmers becomes apparent from the data presented in table 12. Efficiency in table 12 is indicated according to the time of fertilizer application. Basically, there are two times when the growth of the rice plant is affected by fertilizers. One is at transplanting when fertilizers, generally NPK, must be worked into the rice paddy before transplanting and urea broadcast on the field after transplanting. The second time is at budding, about 85-90 days after transplanting, when it is best to apply urea, in particular.

The data indicate that most small farmers from the low-production villages do not generally apply NPK at the recommended time, that is within 15 days of transplanting the paddy and especially at the critical time of budding. On the other hand, many of them apply fertilizer (NPK) 15 days after transplanting and this will have little effect on plant growth. Furthermore, the amount of NPK that they use (as seen from columns 2 through 5) tends to be lower than the recommendation of the Malaysian Department of Agriculture for use on paddy.[31] Similar examples of inefficient use of fertilizers are also reported for highly-productive villages in West Malaysia.[32]

---

[31] The recommendation is two 85-lb bags of NPK per acre during the period of land preparation and one 55-lb bag of urea per acre after planting and at budding. See S. Selvaduri, *Padi Farming in West Malaysia* (Kuala Lumpur, Ministry of Agriculture and Fisheries, 1972), p. 35.

[32] John C. Williams, *op. cit.*, table IV.3 and the subsequent discussion.

Table 12. EFFICIENCY OF FERTILIZER UTILIZATION BY SMALL FARMERS RESIDING IN LOW-PRODUCTION RICE-FARMING VILLAGES IN WEST MALAYSIA

Fertilizer type	*Percentage of farmers applying various amounts of chemical fertilizers after transplanting*[a]				
	Percentage of farmers applying fertilizer (1)	*One bag or less*[b] *(2)*	*1.1 to 2 bags*[b] *(3)*	*2.1 to 3 bags*[b] *(4)*	*More than 3 bags*[b] *(5)*
* NPK applied within 15 days of transplanting .	23.4	7.8	12.5	1.6	1.6
* Urea applied within 21 days of transplanting .	16.6	20.3	40.6	1.6	4.7
* Urea applied between 85 and 90 days . . .	6.2	3.1	3.1	—	—
NPK applied 15 days after transplanting . .	45.3	17.2	18.8	7.8	1.6

Source: Adapted from John C. Williams, "The structure and development of rice production in West Malaysia — A study of social and economic interaction by factor analysis", unpublished Ph.D. thesis, University of Pennsylvania, 1974, table III.4.

Note: Asterisk (*) indicates proper (efficient) fertilizer application according to the Malaysian Department of Agriculture.

[a] The sample includes 64 farmers from the low-production village.

[b] In bags (85 lb) per relong (a relong is equal to one and one quarter acres).

In essence, the data presented in table 12 clearly indicate that small farmers lack knowledge concerning the efficient use of fertilizers. Generally, it is the function of such services as agricultural extension to give the farmers training in the proper use of modern agricultural inputs and failure to do so leads to the results given in the table.

Thus, the small farmer tends to lag behind larger farmers in the use of chemical fertilizers as well as make inefficient use of what fertilizers he can obtain.

The high benefit/cost ratio for chemical fertilizers leads to the conclusion that fertilizers should be more highly demanded for agricultural production, even given their current high prices. However, demand for fertilizers by small farmers is very small. The factors which account for the low utilization of fertilizers by small farmers are complex and appear to concern demand more than supply. In fact, the general availability of chemical fertilizer on the world market is expected to reach glut proportions in the near future. For instance, it is estimated that, by 1980, in the ESCAP region alone, the supply of nitrogen will exceed demand by some 1 million tons if current prices are maintained.[33]

The constraints on the use of chemical fertilizers by small farmers, given current pricings, can be seen in terms of four factors: credit availability, risk, institutional means for supply, and information. Credit availability for small farmers is discussed in chapter 4. A discussion of risk is dealt with later where its effect on the use of all modern agricultural inputs can be assessed.[34] Concentration here is focused on institutional means of supplying fertilizer and on institutional means for disseminating knowledge about the product.

Fertilizer supply or marketing schemes in the ESCAP region are diverse in form and structure. They are as different as the scheme in Thailand which depends on private distributors for supplying the needs of farmers, to that of the BIMAS series of programmes in Indonesia which is central government sponsored.[35] Little empirical evidence is available concerning these schemes but what does exist suggests that they are rather inefficient in instituting an integrated programme to meet the needs of small farmers. Inefficiencies appear in all manner of activities: promotional activities, buying and selling procedures, use of marketing channels, and physical distribution of the product. It suggests that it is difficult for these schemes to supply fertilizer at the right time and right place for use by small farmers. In the words of one report on the subject: "Despite the governments' policies and efforts, the efficiency of fertilizer marketing systems for the small farmers still needs to be improved far more than the present situation. The common features are that the spelled-out government policies and programmes are often not being implemented at the field level and there is a wide gap between the announced policies and the practices in the field."[36]

---

[33] UNIDO/ESCAP, "Regional co-operation in chemical fertilizers", (mimeo.), Dec. 1975, table 8.1, which incorporates recent TVA/IFDC and UNIDO/ESCAP estimates.

[34] See section 6 of this chapter.

[35] These schemes have been well documented, and criticized, in various works, among the most recent of which are *Case Studies on Fertilizer Marketing and Credit,* FAO/FIAC Reports, especially "The fertilizer marketing system of Thailand", November 1972, "The fertilizer marketing system of Iran", February 1973, "The fertilizer marketing system of Nepal", December 1972, and "The fertilizer marketing system of Pakistan", June 1974. For Indonesia, see Gary E. Hansen, "Indonesia's green revolution: The abandonment of a non-market strategy towards change", SEADAG Papers, New York; Dick Frank, "The green revolution in a Javanese village", Ph.D. thesis, Harvard University, June 1972; BIMAS Evaluation Study by Agricultural Executives Inc. of Manila, April 1971, chapter 5.

Agricultural extension services have been used as a direct means of stimulating demand for fertilizers by providing farmers with information about the new technology. The working arm of the extension services is the field extension worker who has less than high-school or vocational school education and who is given only about one-year training in agricultural practices. Moreover, he is generally at the lowest end of the government hierarchy and thus earns the lowest salary among agricultural officers and has little entitlement for transfer to another position or for promotion. Finally, he is expected to cover a wide area containing a large number of farmers, few of whom appreciate the services he brings.[37] The problems of extension services are further compounded by the tendency to utilize the prospective field extension worker in other activities, such as that of credit accountant, and to imbue him with a bureaucratic outlook which makes him feel that the farmer should come to him rather than that he should go to the farmer.

Hence, it is no wonder that extension services tend to be weak in the developing ESCAP countries. A good measure of this weakness is seen in the statistics of individual countries concerning extension agent contract with farmers. For example, in the Philippines, 22.56 per cent of rice farms and 17.58 per cent of corn farms were visited by extension agents in July-December 1971. The figures are much the same for January-June 1972: 20.01 and 15.82 per cent, respectively.[38] Even lower is the percentage of farmers who visited government offices in the same period: 11.45 per cent for July-December 1971 and 12.35 per cent for January-June 1972,[39] Such figures are not encouraging.

Moreover, small farmers tend to be more neglected by extension services than larger farmers. A survey of farmers in Malaysia indicates that larger, generally more influential farmers have greater extension contact.[40] However, this study also points out that, in villages marked by high income, the larger, more influential farmers disseminate the technical advice gained from the field extension agent throughout the village. Large, influential farmers residing in villages with a less productive base, however, tend to disseminate less information. Studies made in India point to similar conclusions concerning the weakness in extension service programmes, especially for farmers residing in villages with a weak economic base.[41]

Hence, actual demand for fertilizers, which is closely associated, among other factors, with supply considerations and knowledge of its potential use, is far less than potential demand for the product which is reflected by the product's high benefit/cost ratios. The cause of this seems to lie in the failure of existing institutional instruments, subsidy, marketing and extension service programmes, to fulfil their expected roles of stimulating demand. It appears that far more emphasis may have to be given to direct means of influence, such as extension contact, to achieve the twin goals of (a) convincing the farmer of the economic benefits of the product, and (b) transmitting knowledge of its proper and efficient use. However, to do this, especially with a view to aiding the small farmer, substantial administrative and institutional reform would be necessary. This subject is discussed in chapter 7 of this *Survey*.

(c) *Irrigation facilities and water management*

Water is a prime factor in agricultural growth and the efficient use of it necessary for the optimal use of other factors of production, especially fertilizers. Indeed, the relationship between fertilizers and water use is so close that there is a growing feeling that these two factors should no longer be evaluated separately.[42] In this connexion, it was pointed out earlier that farmers, both large and small, utilize less fertilizers under conditions where proper irrigation and weather conditions are unstable or in doubt.

This section explores the availability of water in the ESCAP region, as far as the small farmer is concerned, by surveying the present availability of irrigation facilities. In the final pages of the section, attention is directed to the question of the small farmer's efficient use of water.

Availability of irrigation facilities

Irrigation facilities in the region are of several types. The most common are public irrigation systems which are composed of reservoirs, main canals and feeder canals. Of growing importance, however, are tube-wells which are generally privately-owned. Other sources of water include surface water which is drawn from rivers, lakes, and rainfall which may be captured in tanks or man-made ponds. Here, consideration is given to irrigation systems, one of the most capital-intensive water supply sources, and tube-wells.

---

[36] Chong-Yeong Lee, "Fertilizer marketing for small farmers in Asian countries" (mimeo.), FAO Regional Office, Bangkok, June 1975.

[37] *Ibid.*, p. 2.

[38] Bureau of Agricultural Economics, *Integrated Agricultural Survey*, June 1972.

[39] *Ibid.*

[40] John C. Williams, *op. cit.*, chapter 7, especially part II.

[41] F. Fliegel, J. Kivlin and G. Sekhon, "Message distortion and the diffusion of innovations in northern India", *Sociologia Ruralis*, 1971, vol. 11, No. 2, 1978-1982. Also see section VII, "Peasant community and diffusion", especially the subsection on communication of new technologies.

[42] Palmer, *op. cit.*, p. 31.

Irrigation system facilities have expanded quite remarkably in many ESCAP member countries, as can be seen from table 13.

Reservoir capacity in 1960 in most ESCAP countries, with the exception of India and Sri Lanka, was nearly non-existent. However, an increase of about 10 per cent in annual public expenditure on irrigation systems in most countries in the region greatly expanded reservoir capacity by 1970.[43] However, even with such a large expansion during the decade, the annual water runoff captured in reservoirs was only between 3.5 and 15.0 per cent by 1970.

The annual utilization of surface water, derived from all such water sources as reservoirs, lakes, tanks and rivers, also increased. However, this increase was less than that of reservoir capacity over the decade. Moreover, the total water runoff used in 1970 for irrigation showed little increase over the utilization of water runoff associated with reservoirs in several countries of the region, such as the Republic of Korea, Sri Lanka, Thailand and, perhaps, the Philippines. This suggests that, apart from the creation of reservoir capacity, there has been little effort to use water runoff in many countries of the region.

Associated with the increases in reservoir capacity and annual utilization of surface water has been an increase in irrigated area. However, the expansion of irrigated area in all countries of the region was not overly impressive in the last decade, the annual growth rate being between 0.2 and 2.7 per cent. Irrigated area as a percentage of arable land is also small. Most countries of the region have less than one-third of their arable land irrigated; many have only one-fifth or less.

It has been estimated that the irrigated area in the region will increase by 24 million hectares between 1970 and 1980 and by about 23 million hectares between 1980 and 1990.[44]

The tube-well is an irrigation facility which has been gaining increasing use of late, especially in Pakistan, India and Bangladesh. In these countries, the tube-well provides a water supply in areas where no capital-intensive irrigation systems are constructed.

In its simplest form, the tube-well consists of a 6 to 8 inch tubular shaft sunk to a depth of 50 to 150 feet (depending on soil and water table characteristics), to which a centrifugal pump is attached. The pump may be run by an electric motor or a 15 to 20 hp one-cylinder diesel engine. Farmers' acceptance of the tube-well has made steady progress: the increase in tube-well ownership in Pakistan is an example of this.[45] Between 1954/55 and 1972/73, tube-wells in Pakistan and in the Punjab, Pakistan increased from nearly nil to 94,638 and 99,025 units respectively.[46] The compound growth rates for tube-well construction in Pakistan during the first three plan periods were 28.8, 33.19 and 20.0 per cent respectively.[47] The use of tube-wells is thus clearly expanding, although, because of the capital expense and other related problems, small farmer ownership of tube-wells is marginal.[48] At the present stage of tube-well usage, however, it would be best to consider the tube-well as only a supplement to the more capital-intensive irrigation systems constructed in the region.

As regards small farmers' use of irrigation facilities of all types, little information is available for the region as a whole. Some information, however, is available from south Asian sources. Table 14 presents all-India data concerning the general use of irrigation facilities by land class size.

Table 14 indicates that marginal and small farmers account for a larger share of the total (net) irrigated area (about 31 per cent) than of the total holdings area (about 21 per cent).[49] This implies that marginal and small farmers have a larger proportion of their farms irrigated than do medium and large farmers. However, the distribution of irrigation sources, as shown in table 15 which follows, gives a slightly less optimistic picture about use of irrigation facilities by small farmers, when the type of facilities at his disposal is considered.

Table 15 shows that the marginal and small farmers account for a much larger share of area irrigated by tanks and "other sources" relative to

---

[43] *Water Resources Journal*, September 1973, table III-2.

[44] See ESCAP, "Development of irrigation to increase food production in the developing ESCAP countries", paper presented at the first session of the ESCAP Committee on Agricultural Development, 25 August to 1 September 1975, table 5.

[45] Mohammed Afzal and others, *The Pricing of Agricultural Capital Inputs in Pakistan* (Islamabad, Pakistan Institute of Development Economics, 1974), p. 51, foot-note 24. The data are based on an empirical study at the farm level.

[46] Jerry B. Eckert, "Private tubewell numbers in Pakistan: A synthesis", *The Pakistan Development Review*, vol. XIII, No. I, Spring 1974, pp. 94-105.

[47] *Ibid.*, p. 100.

[48] See Government of Pakistan, "A report on the farm mechanization survey, 1968", Agricultural Census Organization, June 1969, and Mohammed Afzal and others, *op. cit.*, p. 48.

[49] The figures presented could be slightly skewed to reflect the conditions of the Punjab, where a large amount of irrigated area is located.

Table 13. ASPECTS OF IRRIGATION SYSTEMS IN SELECTED ESCAP COUNTRIES

	Total capacity of reservoirs (million m^3)				*Annual utilization of surface water for irrigation (million m^3)*				*Irrigated area (thousand ha)*			*Irrigated areas as percentage of arable area in 1970*
	1960	*1970*	*Annual growth rate (%)*	*Annual runoff used 1970 (%)*	*1960*	*1970*	*Annual growth rate (%)*	*Total runoff used 1970 (%)*	*1960*	*1970*	*Annual growth rate (%)*	
Brunei	—	0.93	. . .	. . .	—	—	—	—	0.9	0.9	—	2.8
India	55,816	140,748	9.7	8.4	167,400	227,000	3.1	14	23,955	27,520	1.4	20
Indonesia	. . .	. . .	—	—	. . .	. . .	—	—	5,975	6,800	1.3	38
Iran	. . .	5,546	. . .	4.7	. . .	45,000[a]	. . .	39	3,000	3,800	2.4	42
Malaysia	96	1,070	27.3	. . .	10,700	14,000	2.8	. . .	27	9	—	15
Pakistan	. . .	6,450[b]	. . .	3.5	64,300[b]	69,200[b]	0.7	38	. . .	. . .	. . .	. . .
Philippines	. . .	. . .	—	—	2,691	5,097	6.6	14	808	826[c]	0.2	13
Republic of Korea	921	8,347	24.7	13.2	. . .	9,760	. . .	17	663[a]	759	1.4	33
Singapore	26	49	6.6	8.1	—	—	—	30	. . .	. . .	. . .	. . .
Sri Lanka	2,580	3,572	3.3	8.3	7,300	8,200	1.2	. . .	555	403	—3.2	45
Thailand	262	15,732	50.5	14.4	16,000	22,000	3.3	20	1,531	1,992	2.7	20

Source: *Water Resources Journal*, (ST/ECAFE/Ser.C/98), September 1973, tables I-2 and II-1.

[a] M. Yahidi, *Water and Irrigation in Iran*, February 1968; includes 7 million m^3 of return flow.

[b] Based on the data in World Bank Study Group, *Water and Power Resources of West Pakistan*, 1968, vol. 1.

[c] Irrigated rice only.

Table 14. PERCENTAGE SHARE OF TOTAL LAND HOLDINGS AND TOTAL (NET) IRRIGATED AREA BY LAND SIZE (ALL-INDIA)

	Percentage share of total land holdings	*Percentage share of total (net) irrigated area*
Marginal (less than 1 ha) .	8.97	15.09
Small (1 to 2 ha) . . .	11.89	16.29
Semi-medium (2 to 4 ha) .	18.51	22.69
Medium (4 to 10 ha) . .	29.75	28.62
Large (10 ha or more) . .	30.88	17.31
	100.00	100.00

Source: Government of India, Ministry of Agriculture, *All-India Report on Agricultural Census, 1970-1971*, vol. I.

Table 15. PERCENTAGE DISTRIBUTION OF SOURCE-WISE IRRIGATED AREA UNDER FIVE CATEGORIES OF HOLDINGS 1970/71 (ALL-INDIA)

Category of holding	*Percentage area irrigated by*				
	Canals	*Tanks*	*Wells*	*Tube-wells*	*Other sources*
Marginal . . .	14.53	21.01	12.62	13.98	19.38
Small	16.37	19.02	14.58	15.39	18.98
Semi-medium . .	22.33	22.81	21.89	23.94	24.36
Medium . . .	28.55	23.59	30.55	31.67	23.81
Large	18.22	13.57	20.36	15.02	13.47
All	100.00	100.00	100.00	100.00	100.00

Source: As for table 14.

their share of irrigated area than any other land-holding category. Thus, while their combined share of the total (net) irrigated area is 31.38 per cent, their combined share of tank-irrigated area is 40.03 per cent and of area irrigated by "other sources" 38.36 per cent. Their share of the canal-irrigated area, however, is about the same as their share of total (net) irrigated area. Moreover, the marginal and small farmer's share of tank and "other sources" irrigation is merely the obverse of their share of well and tube-well irrigation (27.20 per cent and 29.37 per cent respectively) which necessitates a substantial private investment for operation. The higher weightage of tanks and "other sources" in the marginal and small farmers' irrigated area implies that the marginal and small farmers are exposed to a greater risk of crop failure than the medium and large farmers because tanks and "other sources" depend on rainfall conditions, which are uncertain at best.

Water management is of utmost importance if the expected returns to investment in irrigation systems are to be realized. The problem of water management concerns, for the most part, the design of the irrigation system. All irrigation systems in the ESCAP region are based on a diversion or gravity system. Speaking of the Philippine system, an expert on irrigation system efficiency states that:

> "For its original purpose the gravity system was an ingenious piece of design, since operation and maintenance can be done at minimal expense and with a limited number of personnel. The major drawback of the Philippine gravity systems stems from their inability to store water, due to the natural topography of the land.
>
> Moreover, in most tropical areas rainfall patterns depend upon typhoons and other meteorological factors that do not coincide too well with crop needs. The lack of storage capability of irrigation systems is particularly troublesome because the times of abundant water in the canals are times when the farmer already has water in his fields (with only a few days' possible delay if there is rainfall in the upper ranges of the system).
>
> Thus, gravity irrigation can be viewed as an old system struggling to adapt to a new technological environment. Recent on-farm studies have helped shed some light on some of the problems, but it is evident that further inputs have to be made."[50]

The problems discussed above are complicated by the need for co-operation if efficient use is to be made of the irrigation system. Co-operation is required to have a free flow of water through the canal system and at the different levels of administration in irrigation systems.

Social integration and co-operation is an essential aspect of irrigation system maintenance and improvement, particularly in view of the fact that gravity irrigation systems imply a flow of water from a high to a low level. That is, farms lying at the lower levels must receive water after it has passed through the higher-level farms. Such a situation gives advantage in the form of increased water supply to farms close to the source of the reservoir of the irrigation system.[51] Farms further from the reservoir could be placed in jeopardy if all farmers do not co-operate in allowing water to flow unhindered through the canal system. Such co-operation could entail, at least, the maintenance of existing systems and, possibly, their improvement by expanding the minor irrigation system. It should be noted, however, that the expansion of the minor irrigation system, which is generally considered to be the responsibility of farmers, is estimated to cost $US 250 to $US 300 per hectare.[52] Such investment costs are clearly beyond the means of small farmers, given current credit operations in the region. Moreover, such investment may not be possible unless the fragmented land holdings common to the agricultural sector are consolidated, thus allowing for rational placement of the localized canal system and proper levelling of the land which it would serve.

---

[50] Gekee Y. Wickham, "The sociology of irrigation: Insights from a Philippines study", A.D.C., *Teaching Forum*, No. 31, June 1973, p. 1.

[51] T. Wickham, "Water management in the humid tropics: A farm level analysis", unpublished dissertation, Cornell University, 1971, pp. 207-210.

The second complication involves the co-ordination of the different individual levels involved in the operation of an irrigation system. A co-ordinated four-tiered organization can be regarded as basic for the successful implementation of any irrigation system.[53] The first tier is that of public investment. The cost of irrigation is high, so that some education of the tax-paying public may be needed for them to perceive the value of supporting a project whose development does not directly benefit them. The second tier is that of the organization supporting the facility. The functions of an irrigation body, however, should not be considered to be limited to accounting and planning operations. It could be entrusted with providing a co-ordinated approach to all aspects of farming. This more dynamic conception of the irrigation body would lead directly to a third organizational tier composed of functional units, such as (a) water supply and control units, (b) units responsible for co-ordinating activities with other agencies (credit, farmer's associations, etc.) and (c) field extension units directed towards providing farmers with a wide range of services aimed at increasing production. The fourth tier is that of the farmers themselves. Here co-ordination is essential, both horizontally among farmers and vertically with functional units providing necessary services for them. Co-ordination of the activities of these four tiers is a major problem because an organizational discontinuity between any of these systematic levels may force the irrigation body to function only as a tax collector and water supplier.

Some evidence concerning proper water management of irrigation system water leads to the speculation that smaller farmers may be at a disadvantage regarding such management. It appears that in India they are generally unable to drain the excess water from their fields or to obtain supplemental irrigation when their crops require it.[54] Moreover, some evidence suggests that small farmers do not understand the basic elements behind co-operative water management associated with gravity irrigation systems.[55]

Problems concerning water management are far fewer for the tube-well than for the large gravity irrigation system, primarily because of the tube-well's local and small-scale features. However, two main problems are the size of the land unit that tube-wells are designed to irrigate and the number of tube-wells which can be used in a given area without decreasing the water table.

First, the land area which the tube-well irrigates is large. Some studies estimate that the smallest size pump which can be used, 1/4 cusecs, can economically irrigate a minimum area of between 50 and 100 acres.[56] Clearly, the size of land which the tube-well economically irrigates is more than that held by most farmers, much to say, all small farmers. Hence, there seems to be a need for some form of co-operation, similar to that required for irrigation system, if small farmers are to make proper use of the tube-wells.

Second, there is the problem of the distance that tube-wells have to be placed from one another in order not to impair their capacity to draw water. In Bangladesh, tube-wells are required to be one mile apart, giving one tube-well for every 500 to 600 acres, but, in the dry season, a tube-well pump of 2-cusecs capacity has an irrigation command area of only some 60 acres. The implication is that tube-well irrigation could only cover about 10 per cent of the total area suitable for irrigation development.[57] Thus, it appears that tube-wells can only supplement large-scale irrigation system development. Such evidence suggests that the basic problems surrounding irrigation systems can be relieved but not resolved by using the tube-well.

In conclusion, it appears that co-operation is most important in the effective utilization of existing water supply systems. In particular, the basic design of large-scale irrigation systems necessitates co-operation among farmers in terms of maintenance and improvement of the systems. Moreover, the economic constraints to tube-well usage are such that co-operation among small farmers is required if they are to make use of this technology. The problem, however, is that there is strong evidence that the farmers, especially small farmers, are not knowledgeable about the techniques needed to implement co-operative water management practices. The solution of the problem may well require intensive institutional effort in the form of a redirected and dynamic irrigation body.

---

[52] For further information, see ESCAP, 'Development of irrigation to increase food production in the developing ESCAP countries", paper presented at the first session of the ESCAP Committee on Agricultural Development, 25 August to 1 September 1975, pp. 13-15.

[53] For a similar discussion, see Gekee Y. Wickham, *op. cit.*, p. 2.

[54] Singh Ambika, "On the transfer of technology to the weaker section of the farming community" in Singh and Pandey, eds., *op. cit.*, pp. 21-22.

[55] T. Wickham, *op. cit.*, last chapter, and G. Y. Wickham, *op. cit.*

[56] See the section below on mechanization for further details. Also See: Mohammed Afzal and others, *op. cit.*, p. 51; and West Pakistan University of Engineering and Technology, *A Study of the Contribution of Private Tubewells in Development of Water Potential in West Pakistan*, Lahore, June 1970 (prepared for the Planning Commission, Government of Pakistan), p. 58.

[57] "Planning for irrigation development in Bangladesh", *Water Resources Journal* (ST/ECAFE/Ser.C/100), March 1974, pp. 31-36.

(d) *Mechanization*

Agricultural development is connected historically to the process of mechanization of the tasks performed by farmers. In many countries of America, Asia and Europe, this process released labour from the agricultural sector to work in the industrial and service sectors. The process was complemented by the production of goods in the industrial structure for use in production as well as for consumption on the farm. Increases in productivity allowed many of these countries, notably Australia, Canada and the United States, to become major exporters of farm products.

The countries which transformed themselves into modern agricultural nations, however, accomplished this task over several decades and had a resource mix which favoured the initial substitution of capital, in the form of mechanized equipment, for labour. At the same time, there were corresponding developments which changed the physical and economic infrastructure so as to allow for extended and orderly marketing arrangements, the development of an institutionalized banking system for the provision of credit to the enterprising farmer, etc.

Developing countries of the ESCAP region clearly do not have the same set of economic and institutional resources which made for the development of mechanized agriculture in the developed countries of America, Asia and Europe. The resource mix in those developing countries is composed in many cases of a large population, little extra land on which to settle, inadequate capital resources and a relatively underdeveloped transportation and service infrastructure. For these reasons, it is clear that a different approach needs to be taken when considering the development of farm mechanization in this region's agricultural sector. This is doubly true when it comes to assessing the problems surrounding the mechanization of tasks associated with small farmers. Such an assessment requires an analysis of those factors making for a difference between the social and economic rates of return to mechanization, such as factor pricing and employment effects which, in turn, affect the strategy adopted in promoting appropriate mechanization for small farmer use.

Domestic factor prices clearly determine the choice between the use of machines or labour. Given the set of domestic prices, there is a considerable amount of evidence which suggests that mechanization of selected agricultural tasks is cost-effective. The mechanization of selected tasks in the Punjab is a case in point:

> "Perhaps the most important reason why mechanization occurred in the Punjab is because it was extremely profitable: New power sources are so efficient in the performance of specific tasks that they overcome higher costs per hour of power use. Although the operating costs per tractor-hour were 10-13 times greater than the cash coats per bullock-hour, they were offset by the fact that it requires 10-30 times as many hours to perform the task by animal draft as it does by mechanical power sources. In addition, animals have to be fed even when not in use and require additional fodder when worked. If we consider the variable fodder requirements when animals are worked in terms of the opportunity cost of the land required to grow the fodder, we see the overwhelming cost advantage of mechanical technologies over traditional technologies."[58]

Cost-effective conditions in the Philippines point to similar conclusions in that, while the cost of land preparation may be slightly higher for tractor than for carabao, e.g. by 4.42 pesos per hectare, indirect compensation was found in the amount of time saved by using the tractor, e.g. about eight man days of labour time per season. Also the cost for renting a tractor was 65.28 pesos per hectare less than that for owning a carabao.[59] This evidence points to the likely cost-effectiveness of mechanizing certain tasks performed by agricultural labour in many countries of the region at existing prices of labour, capital, land, etc.

While it is obvious from the above examples that there are many instances of mechanized farming being privately profitable, there is clear evidence available of forces at work which make for the underpricing of mechanical equipment relative to the region's abundant factor of production-labour. This distortion in the domestic pricing of the factors of production arises from the use of over-valued exchange rates, escalated tariff structures, quantitative restrictions on imports and government subsidies which encourage the use of relatively more capital-intensive farming methods in relatively labour-abundant countries. Much of the underemployment and unemployment occurring in rural areas can be attributed to such policies.

---

[58] Inderjit Singh and Richard H. Day, "A micro-economic chronicle of the Green Revolution" in *Econòmic Development and Cultural Change*, vol. 23, November 1975, p. 683.

[59] N. R. Deomanpo and R. S. Torres, "Farm mechanization and small farmers in the Philippines, some economic issues" (mimeo.), University of the Philippines, Los Banos, tables 11 and 13.

At the same time as there are policies which generally bias rural production techniques in a more capital-intensive direction, there are policies which favour the adoption of more capital-intensive techniques on large farms than could be explained by the economies of scale associated with the equipment in use. For example, the provision of credit to larger farmers in quantities and at prices much more favourable than those available to smaller farmers has favoured the adoption of more capital-intensive methods of farming on large farms. Such tendencies have been further exacerbated by the larger farmer making greater use of labour-saving mechanization to avoid the problems associated with the organization and management of a larger work force.

The conclusion is that mechanization which may be privately profitable in many Asian farms may yield a negative rate of return when considered from the viewpoint of society as a whole. Policies which sought successfully to correct these distortions in factor prices would raise the level of both employment and output and thereby generate a higher social rate of return. However, as indicated in chapters 6 and 7 below, the adoption of such policies may require the widespread use of land reform measures if they are to be fully successful. When this is the case, and where the society concerned is committed to a more equitable distribution of wealth and income, the adoption of more labour-intensive techniques in farming would give rise to a pattern of production and consumption in society as a whole more in keeping with the national objectives.

While the above considerations clearly indicate that some of the existing mechanization in use on farms is socially undesirable, they do not imply that all mechanization is undesirable. Regardless as to whether mechanization may be labour-saving or capital-saving on balance,[60] there will always be instances where it is soundly desirable that more capital-intensive methods be used. For example, the maximization of output may require the use of a tractor for deep ploughing where more labour-intensive methods do not suffice; where multiple-cropping techniques provide limited time for soil preparation between crops, sheer organizational considerations may point to more mechanized techniques as being more efficient from a social as well as from a private point of view.

Where does this leave the small farmer in his use of mechanized equipment? To the extent that less capital-intensive techniques were used on large farms and to the extent that the number of large farms was reduced by land reform, there could result a more capital-intensive form of small-scale agriculture. Yet it is difficult, given the heterogeneity of conditions in the ESCAP region, to reach general conclusions about the nature of the small-scale technology which might emerge. It is evident that little has been done to encourage the development of a suitable technology for small farms by appropriate pricing policies, the encouragement of research biased in this direction in research institutes, or the encouragement of the small-scale indigenous industrial sector to provide for such technology.

Some interesting indications concerning policy can be obtained from regional experience with two small-scale uses of mechanization: the power tiller and the tube-well.

A power tiller is basically a two-wheeled tractor. It differs from a larger tractor in that it is a smaller horse-power machine (averaging between 7 and 10 hp per unit), is much less costly and is generally less complex to use and to repair. It is a time-saving device which is most important when double-cropping activities are considered.

---

[60] The following references examine the empirical and *a priori* evidence concerning the impacts of mechanization on employment. At best, the evidence is not conclusive with regard to general trends. See: (a) C. H. Hanumantha Rao, "Employment implication of the green revolution and mechanization: A case of the Punjab" in Nurul Islam, ed., *Agricultural Policy in Developing Countries* (New York, John Wiley and Sons, 1974), pp. 340-350; (b) Deomanpo and Torres, *op. cit.*, table 6; (c) Billings, Martin and Singh, "The effect of technology on farm employment in two Indian States" in Ronald G. Ridker and Harold Lubell, eds., *Employment and Unemployment Problems of the Near East and South Asia* (Delhi, Vikas Publications, 1971), pp. 502-534; (d) William H. Bartech, "Employment effects of alternative technologies and techniques in Asian crop production: A survey of evidence", (mimeo.), ILO, World Employment Programme, August 1973, especially pp. 61-64; (e) Cristostomo and others, "The new rice technology and labour absorption in Philippine agriculture", *The Malayan Economic Review*, vol. 16, No. 2, October 1971, pp. 117-158; (f) M. D. Resai and K. K. Mohan, "Green revolution and farm labour use: The case of the Kaira District", *Artha-Vikas* (Valiabh Vidyananar, India), vol. 6, No. 2, July 1970, pp. 51-59; (g) Anwarul Hoque, *Costs and Returns: A Study of Irrigated Winter Crops*, Kotbari, Comilla, Pakistan Academy for Rural Development, July 1968; (h) Inderjit Singh, Richard H. Day and S. S. Johl, *Field Crop Technology in the Punjab, India* (Madison, Social Systems Research Institute, University of Wisconsin, 1968), especially tables 10 and 12, pp. 46, 66-68 and 70.

However, a power tiller may not be an economically feasible investment for a small farmer. First, the area which must usually be ploughed by a 10-hp power tiller in order to equate costs to benefits is often beyond the land area held by small farmers. In Pakistan, the estimated land area necessary for a 10-hp power tiller to equate costs to benefits is 14.5 acres.[61] Similarly, in the Republic of Korea, the area of land necessary to equate costs to benefits is between 8.1 and 26.1 acres when using an 8-hp power tiller. The exact area involved in each case, however, is determined by the intensity of use, including the possibility of multiple cropping, and the type of crop cultivated.[62] Yet, it appears that, in many cases, economies of scale make the use of power tillers uneconomic from the viewpoint of *individual* small farmers.

A connected problem affecting the use of power tillers by small farmers is the obtaining of credit with which to finance them. In Pakistan, a 10-hp diesel power tiller was estimated to cost about $US 600 in 1973.[63] In Thailand, a domestically manufactured 10-hp gasoline-engined power tiller costs $US 350 to $US 450.[64] The price for a 4 to 7.5 hp gasoline power tiller in the Philippines in 1969 was about $US 875.[65] With a credit system which is biased against small farmers, such funds are difficult to come by.[66] Appropriate policies in this instance, of course, are to remove the credit constraint. Distortions in the credit market are obviously not an economic argument against the use of the power tiller by small farmers.

A final problem regarding the use of the power tiller is presented in table 16. This table indicates that, while the cost of the machine is a problem for Philippine farmers, it is not as much of a difficulty as maintenance-related problems. Some 49 per cent of the sample of the Philippine hand-tractor owners mentioned "procurement of spare parts" as the major problem in acquiring and using a power tiller. This problem arises either because of an inefficient market for spare parts or because of a lack of knowledge concerning the type of spare parts needed and the proper way to use them in repair operations. Both these problems, however, can be remedied by appropriate policies and, as in the case of credit facilities, do not constitute a valid economic argument against the use of power tillers by small farmers.

Pakistan's experience is instructive in the case of tube-wells. In November 1975, the cost of establishing a tube-well in Pakistan was between 5,000 and 7,000 rupees. The equipment included pipes, a 7.5 to 10 hp engine, a switch starter, a pump, and a coir filter. The cost of a tube-well is therefore too high for most small farmers, given the size of holding they would be used on.[67] It should also be noted that the example above is based on capital costs for electric engines. A diesel-powered pumpset costs about 33 per cent more than an electric-powered pumpset, although it has a lower rate of depreciation.[68] A diesel-powered pumpset, is also more expensive to operate than an electric-powered pumpset. One estimate, made in November 1973, and assuming equal operation of 200 hours per month for both pumpset types, indicates that the cost would be Rs 498 for diesel fuel and only Rs 267 for electricity. Diesel fuel would therefore be about 86.5 per cent more expensive than electricity.[69]

There are indications that the minimum economic area for the use of a tube-well is about 12.5 acres in Pakistan, where IDA loans administered by the World Bank for tube-well development required potential borrowers to have land holdings of at least 12.5 acres in order to obtain a 1/4 cusecs pump.[70] However, at least one study argues that a more realistic figure for such a pump size is about 6 acres,[71] and this would bring the economic use of a tube-well within the reach of some small farmers. Nevertheless, as it would appear that more land is required than a small farmer normally operates, a group of small farmers may have to co-operate in order to use a pump effectively.

As in the case of the power tiller, knowledge about how to maintain and use a tube-well is important. Frequently the small farmer has difficulty in repairing a tube-well because of lack of training.

---

[61] See Javed Hamid, "Agricultural mechanization — A case for fractional technology" in *Teaching Forum*, ADC, New York, No. 33, September 1973, p. 6.

[62] NAERI publications, Republic of Korea.

[63] Javed Hamid, *op. cit.*

[64] Ungthip Chinapant, "Marketing of and demand for the domestically produced small farm tractors in Thailand", M.A. thesis, Faculty of Economics, Thammasat University, June 1974, tables 6 and 11.

[65] Bert Orcino, "Economic aspects of hand tractor ownership and operation" in H. Southworth and M. Barnett, eds., *Experience in Farm Mechanization in Southeast Asia* (New York, ADC, 1974), table 6, p. 219.

[66] See chapter 5 below for a discussion of the small farmer's difficulties in obtaining credit for such items as fertilizers, much less power tillers, etc.

[67] The costs have been lowered somewhat in Bihar, India, by substituting bamboo for iron tubing. See Arthur J. Dommen, "The bamboo tube-well", *Economic Development and Cultural Change*, vol. 23, No. 3, April 1975, pp. 483-489.

[68] Mohammed Afzal and others, *op. cit.*, p. 55.

[69] *Ibid.*, p. 58.

[70] *Ibid.*, p. 51 and foot-note 24.

[71] West Pakistan University of Engineering and Technology, *op. cit.*, p. 58.

Table 16. Farm characteristics and problems of ownership and maintenance of hand tractors mentioned by 140 owners, by type of tractor, Laguna, Philippines 1969

	Tractor type (hp)			
	4-6 hp	*4-7.5 hp*	*6-14 hp*	*All types*
Farm characteristics				
Rain-fed	—	2(3)	1(4)	3(2)
Irrigated 1-crop	1(2)	4(6)	3(12)	8(6)
Irrigated 2-crop	46(98)	62(91)	21(84)	129(92)
Average size (ha)	4.04	4.35	4.82	4.33
Problems				
1. Cost-related:				
High initial cost	13(28)	26(38)	6(24)	45(32)
Cost of spare parts	13(28)	16(24)	3(2)	32(23)
No ready cash with which to buy spares	1(2)	5(7)	—	6(4)
2. Maintenance-related:				
Spare parts procurement	28(60)	36(53)	5(20)	69(49)
Fragment breakdown	1(2)	5(7)	4(16)	10(7)
Weak axle	—	12(18)	2(8)	14(10)
3. No problem reported	11(23)	19(28)	13(52)	53(3)

Source: Bert Orcino, "Economic aspects of hand tractor ownership and operation", in Southworth and Barnett, eds., *op. cit.*, pp. 221-231, tables 2 and 5.

Note: Numbers in parenthesis are percentages of owners of the type.

Such problems, of course, can be corrected by increased training through institutional means.

Another development to capture the economies of scale involved in the use of tube-wells is the emergence of a market in irrigation water arising from excess capacity on some farms. Studies have shown that such a market is widespread in Pakistan, although the amount of water purchased is well below that which is considered optimal in relation to the potential supply of water.[72]

To conclude, there is evidence that, in many cases, the individual small farmer is unable to use the power tiller and tube-well because of economies of scale. In these cases, if a policy advocating the use of power tillers and tube-wells were adopted, it would need to be based upon the collective use of the equipment concerned, either by renting machine services or by co-operatively sharing the machine. There have been some developments along these lines. One such organization exists in Malaysia for the effective utilization of power tillers.[73] In the northwestern part of Malaysia, the average area of land owned by a farmer is 1.7 acres. This acreage is too small to allow a farmer to economically purchase a power tiller for his own use. Nevertheless, 7 per cent of the farmers owned power tillers. The power tillers were rented out by their owners to farmers who needed their services, and some 80 per cent of the farmers rented power tillers. Since 1970, the Malaysian Government has fostered such private ownership of power tillers, used on a rental basis by non-owners, by giving credit priority to business groups of ploughing contractors registered with the Malaysian Agricultural Bank.[74] In such a way, power tillers can be used economically by small farmers.

3. *Problems surrounding the diffusion of technology to small farmers*

The preceding section examined the small farmer's experience with modern agricultural technology in some parts of the ESCAP region, and certain economic issues which are associated with such technology. In the examination, benefit/cost ratios, productivity and complementarity considerations were emphasized. Several important points were considered, including the low use of fertilizers in spite of its high technical benefit/cost ratio, the difficulties involved in the management of water under the prevailing irrigation system designs, the need for a complementary package of inputs with the introduction of HYV grains, the technical constraints on the use of selected mechanization by small farmers, and the need to consider social as distinct from economic rates of return when looking at mechanization.

---

[72] Mohammad Naseem, "Small farmers in the agricultural transformation of West Pakistan", unpublished Ph.D. thesis, University of California, 1971.

[73] See John C. Williams, *op. cit.*, chapters 3 and 4.

[74] A. Rahman Hamid, "The role of credit in farm mechanization development" in Southworth and Barnett, eds., *op. cit.*, p. 146.

It is difficult to make generalizations about the experience that small farmers have had with technology on account of the lack of homogeneity in policy and environment between countries of the ESCAP region and between regions of the same country. It is clear, however, that small farmers lag behind larger farmers in the use of HYV grains, fertilizers, machinery and, perhaps, irrigated water. The small farmer's use of different technologies is partly due to the economies of scale associated with the use of such items as power tillers or tube-wells and partly to an unequal access to modern inputs and knowledge about how to use such inputs.

Some studies indicate that, in the long run, the small farmer does make use of the new technology in the same way as the larger farmers. This is contended because of some evidence which suggests that income distribution in the long term does not become more skewed in areas where intensified agricultural development programmes are successfully implemented. For instance, a recent study of income distribution in Pakistan from 1959 to 1970 concludes that rural income inequalities showed an appreciable decline during the period of the green revolution.[75] The study suggests that possible reasons for this decline were the partial substitutability of agricultural inputs and the effect of technological diffusion which tends to take place with development. As regards substitutability, farm machinery can be partly replaced by labour, farm yard manure may be a partial substitute for chemical fertilizers, and so forth. With respect to the diffusion of technology, adoption generally proceeds from innovators (perhaps large farmers) to non-innovators (perhaps small farmers). Empirical evidence from the years 1967/68 to 1970/71 in the well-endowed Indian Punjab supports the conclusion of the Pakistan study[76] that the new wheat technology was equally adopted by small and large farmers over the long term. It was also found that, over the years, technical efficiency increased and unit costs of production declined for both farmer groups.

Both these studies imply that technology is somewhat neutral to scale in the long run in areas where institutions have successfully implemented agricultural development programmes.[77] However, it seems decidedly premature to conclude that, in the long run, small farmers will innovate and develop without assistance. This is especially so in light of the overwhelming evidence which suggests that factor market distortions give greater access to essential modern inputs to those farmers having more land, status, wealth and influence.[78]

Our attention now shifts from a consideration of the nature of the technology itself to other factors which skew the transfer or diffusion of technology in the rural areas to large farmers while small farmers are left behind. If the classical definition of the transfer or diffusion process is used, there are at least three elements which interconnect to affect the process of technological transfer: the technology concerned, the decision-maker, and the decision-maker's institutional environment.[79] The following discussion will complete the examination of the experience of the small farmer with technology by relating the decision-maker's characteristics and his environment to the problems of technological transfer. First to be discussed will be the farmer's social and economic characteristics relative to the diffusion of technology. This discussion is then related to the problem of risk. A discussion of the social environment follows, with special emphasis accorded the role of village-level communication and co-operation in the process of technological transfer. Finally, the problem of research and extension is considered. Emphasis is given to short-term factors affecting the transfer of technology which tend to make the small farmer lag behind in the use of technology and which directly affect his immediate welfare.

(a) *Farmer characteristics and diffusion*

Many studies have investigated the relationship between the socio-economic characteristics of a population and the diffusion and adoption of innovations. Unfortunately, only a few of these studies have focused on farmers and fewer still have focused on countries of the ESCAP region. Many of the studies which are available are surveyed here with a view to obtaining a set of generalizations concerning the type of farmer who would generally be innovative in the rural area. A brief discussion is then given concerning the length of time it may take for information to diffuse from innovative farmers to lesser-innovative farmers in order to place the study of socio-economic characteristics of farmers within a dynamic framework.

---

[75] M. Ghaffar Chaudhry, "Rural income distribution in Pakistan in green revolution perspective" in *Pakistan Development Review*, vol. XII, No.3, August 1973.

[76] Surjit S. Sidhu, "Economics of technical change in wheat production in the Indian Punjab", *American Journal of Agricultural Economics*, vol. 56, No. 1, pp. 217-226.

[77] On this point see: Jan R. Wills, "Projections on effects of modern inputs on agricultural income and employment in a Community Development Block, Uttar Pradesh, India", *American Journal of Agricultural Economics*, August 1972, pp. 452-460.

[78] See Keith Griffin, *op. cit.*, especially chapter 2, and Francine R. Frankel, *India's Green Revolution: Economic Gains and Political Costs* (Princeton, N.J., Princeton University Press, 1971), especially chapter 7.

[79] The classical definition of the diffusion process may be stated as the acceptance, over time, of some specific item by adopting units linked by specific channels of communication to a social structure and a given culture. See Elihu Katz, Martin L. Levin and Herbert Hamilton, "Traditions of research on the diffusion of innovations", *American Sociological Review*, No. 28, 1963, pp. 237-252.

A large number of studies have recently examined the characteristics of the farmer who first gets the benefit of a new technology. Many of these studies are closely related to the adoption of high-yielding grains and their complementary factors.

The characteristics of the innovative Indian farmer have been investigated in several studies,[80] two of which are summarized here. A comprehensive study of the major factors affecting the acceptance of new agricultural innovations was carried out in early 1967 in eight villages throughout India.[81] The study was limited to farmers operating one hectare of land or more, which in effect meant that the study compared the innovational characteristics of larger farmers with those of smaller farmers. Using multi-correlation analysis, the study analysed three basic sets of factors which are held to influence adoption of modern innovations: background variables, communication variables and social-psychological variables.[82]

The analysis revealed that farmers who adopted modern innovations had an economic level of living and size of farm operations greater than those who did not do so. Hence, wealthy farmers with large land-holdings are the primary adopters of innovations in India.

Farmers who adopted agricultural innovations also had a large degree of contact with extension agents and, to a lesser extent, contact with mass media and urban centres. Such results indicate that larger farmers monopolize the service of extension agents and gain most of their knowledge about new technology from them.

In general, the social-psychological variables most significantly associated with the farmer who adopts (the large farmer) are those which suggest that he participates psychologically and has a faith in a more rational extra-village world. As a consequence, the farmer who adopts has a higher credit, urban, and secular orientation in addition to having more political knowledge.

A study on the adoption of farm mechanization, conducted in 10 villages of the Kanjhawala development block in the Union Territory of Delhi, underlines what has been presented in the preceding paragraphs.[83] It was found that the adoption of farm mechanization is positively and significantly related to education, social participation, farm size, economic status and socio-economic status. Adoption was related negatively to values of conservatism and fatalism. In short, the adopters of farm mechanization in an Indian community are the farmers who possess wealth, status and progressive value orientation.

For Malaysia, two studies have attempted to assess the characteristics of innovative farmers. Both studies were conducted in an agricultural environment which had the most modern facilities for rice cultivation.

The first study, conducted in central Malaysia, examines the role of technical knowledge (a mark of innovativeness) as a determinant of income and resource productivity.[84] A questionnaire was designed to test the correspondence between these factors. Although technical knowledge among the farmers in the study was generally low,[85] it related positively and significantly to farm income and resource productivity and negatively to age and literacy. Technological knowledge did not vary with the size of land-holding: this was put down to the

---

[80] See *Behavioural Sciences and Community Development*, vol. 7, for a comprehensive list of studies undertaken in India.

[81] Prodipto Roy and others, *Agricultural Innovation among Indian Farmers* (Hyderabad, National Institute of Community Development, 1968).

[82] *Ibid.*, the results of the analysis were as follows:

ZERO-ORDER AND HIGHEST-ORDER PARTIAL CORRELATION COEFFICIENTS OF AGRICULTURAL INNOVATION WITH 15 SELECTED VARIABLES (N=680)

Variable	*Zero order correlation*	*Highest order partial correlation*	*Highest order partial after deleting insignificant variables*
1. Education of respondent	.36^a	—.07	—
2. Caste rank	.29^a	.06	—
3. Level of living	.59^a	.32^a	.34^a
4. Social participation (holding office)	.24^a	.04	—
5. Value of agricultural products raised (land size)	.43^a	.21^a	.21^a
6. Mass media contact	.50^a	.08^b	.08^b
7. Urban contact	.30^a	—.01	—
8. Extension contact	.49^a	.22^a	.23^a
9. Political knowledge	.37^a	.09^b	.08^b
10. Secular orientation	.27^a	.19^a	.18^a
11. Education aspiration	.19^a	—.08^b	—.08^b
12. Urban pull	.18^a	.11^a	.10^a
13. Empathy	.14^a	—.07	—.08^b
14. Credit orientation	.13^a	.21^a	.21^a
15. Deferred gratification	—.02	—.06	—

^{a} and ^{b} Significant at .05 and .01 per cent level.

[83] See, for instance, N. V. Kolte, "Social psychological correlates of farm mechanization", *Behavioural Sciences and Community Development*, vol. 7, No. 1, March 1973, pp. 58-63.

[84] U. N. Bhati, "Farmer's knowledge and income — A case study of padi farmers of West Malaysia", *The Malayan Economic Review*, vol. XVIII, No. 1, April 1973, pp. 36-47.

[85] The maximum technical knowledge score obtainable was 24.5; the mean score obtained by the farmers in the sample (N = 42) was only 10.62.

fact that land-holding size did not vary much between farmers.

The second study, conducted in northwest Malaysia, more directly studied the socio-economic characteristics of farmers who adopted HYV paddy during the 1972 off-season.[86] It was found that, in low-productive villages, the farmer adopting HYV paddy was characterized by his wealth (land owned and income), his political power (membership), his extra-farm experience (employment outside agriculture and children migrating to towns), his high yield, and his perception that yield was increasing. Both studies suggest, therefore, that the wealthier, more influential farmer in Malaysia is the one who first adopts new innovations.

A study of characteristics of farmers who adopted high-yielding rice varieties in Java reveals results similar to those of the preceding studies.[87] The study involved interviewing 1,100 farmers from three areas of Java (west, central and east) during the wet season 1968/69, the dry season 1969 and the wet season 1969/70. Six characteristics of innovators were discussed: the size of rice operation, land tenure status, outside farm employment, the percentage of farmers selling rice and the average amount sold. The results indicate that: larger farmers in Java are the ones who adopt high-yielding varieties;[88] tenure of land makes little difference as to who adopts HYV rice and who does not;[89] there seems to be little difference between adopters of HYV rice regarding sales of rice, although non-adopters tended to buy more rice for consumption owing to distress marketing of their rice supply;[90] in west and east Java, there is no relationship between outside farm income and adoption of new high-yielding varieties;[91] although for central Java, those farmers who planted local varieties had more outside farm income than those who planted HYV rice.[92]

The Indonesian study essentially corresponds with the general body of knowledge concerning farmer characteristics and adoption. However, it goes on to suggest that, in Java, operational size, not tenure status, is most important in the adoption of innovations.

Most studies of farmer characteristics are conducted in areas where there are facilities which promote the use of the new high-yielding grains, that is in irrigated areas. A study of 226 small holders (average holding about 5 acres) farming in the Hazara District, North-West Frontier Province, Pakistan, in 1970 is an exception to this rule.[93] In the Hazara District, agriculture, mostly consisting of wheat cultivation, is rain-fed, with an annual rainfall ranging from 30 to 60 inches. Yet, even in rain-fed conditions, many small holders have adopted high-yielding wheat grains. Table 17 below indicates the diffusion of high-yielding wheat[94] and chemical fertilizer in the Hazara District from their introduction in 1966/67 until 1970.

---

[86] Data from John C. Williams, *op. cit.*, especially chapter 7.

[87] William L. Collier, "Characteristics of the farmers who have adopted the high yielding rice varieties on Java", Indonesia Research Note, *Agro Economic Survey*, No. 9, April 1972.

[88] *Ibid.*, p. 7.

[89] *Ibid.*, p. 16.

[90] *Ibid.*, p. 33.

[91] *Ibid.*, pp. 34 and 35.

[92] *Ibid.*, p. 34.

[93] Refugio I. Rochin, "The subsistence farmer as innovator: A field survey", *South Asian Review*, No. 4, 6 July 1973, pp. 289-302.

[94] Mexipak-65.

Table 17. DWARF WHEAT AND CHEMICAL FERTILIZER USED FOR THE FIRST TIME BY RESPONDENTS EACH YEAR: HAZARA DISTRICT SURVEY, 1970

Growing period for wheat	*Dwarf wheat*[a] *(n=226)*			*Chemical fertilizer*[b] *(n=95)*		
	Number of adopters per year	*Cumulative number of adopters*	*Cumulative % of "n"*	*Number of adopters per year*	*Cumulative number of adopters*	*Cumulative % of "n"*
1966/67	2	2	0.83	3	3	3.16
1967/68	28	30	13.26	5	8	8.42
1968/69	45	75	33.17	20	28	29.47
1969/70	75	150	66.35	30	58	61.05
1970/71[c]	50	200	88.47	11	69	72.63

Source: Refugio I. Rochin, "The subsistence farmer as innovator: A field survey", *South Asian Review*, No. 4, 6 July 1973, table 2.

[a] Data collected from first and second surveys.

[b] Data collected from second survey.

[c] Respondents' anticipated use.

It should be noted that innovators (initial adopters) consisted of less than 1 per cent of the sample for HYV wheat adoption and about 3 per cent of the sample for chemical fertilizer adoption. After initial adoption by innovative farmers, the number of farmers who adopted the new technology grew at a rapid rate and, after five years, about 89 per cent of the farmers in the sample had adopted HYV wheat and about 73 per cent had adopted chemical fertilizer. Several factors aided this process of diffusion in the Hazara District. One of these was the relatively high price for high-yielding varieties in comparison with traditional varieties. In 1966/67, the price of HYV wheat was Rs 54 per maund while that of traditional wheat was Rs 20 per maund. By 1969/70, the price of HYV wheat had fallen to Rs 22 per maund, still slightly higher than that of the best traditional wheat, which was maintained at Rs 20. Farmers mentioned two other factors that were responsible for their adoption of the HYV grain: (a) the visibly higher yields that the new wheat produced, and (b) the fact that complex changes from traditional methods of cultivation were not called for in the cultivation of the new wheat.

It is clear that a large majority of the Hazara District farmers were relatively responsive to the new technology and to the benefits it offered. However, the process started from a handful of innovative farmers who may have already been the "best" farmers in the district.[95] The characteristics of these innovators were assessed in the study and were defined in the following manner:[96] they had larger farms, that is farms in excess of 5 acres; they had large extended families, about 15 people per household; they owned nearly all of their land; they received the largest total cash income, including remittances of family migrants; they first learned of HYV grains from the agricultural extension personnel in the vicinity.

The conclusions of the wide range of studies surveyed above indicate that the innovative farmer corresponds well with what could be called a large farmer; that is, a farmer with relatively large landholdings, high social status, wealth, influence, and external contacts from the community where he lives. Such information conforms with the general body of knowledge concerning socio-economic characteristics and the adoption of innovations.[97]

Can the small farmer benefit if the large farmer is the first to adopt new technology? Some evidence, already discussed, seems to indicate that he does benefit, but only in the long term and in areas where institutions allow him to do so. In every society there seems to be a process of technological adoption whereby innovators adopt a technology which then spreads out, over time, through their community. Little research has been undertaken on time lag associated with the spread of new technology from innovators to less innovative, individuals in the ESCAP region. Studies from other developed regions, however, suggest that the time period associated with diffusion is variable, depending in

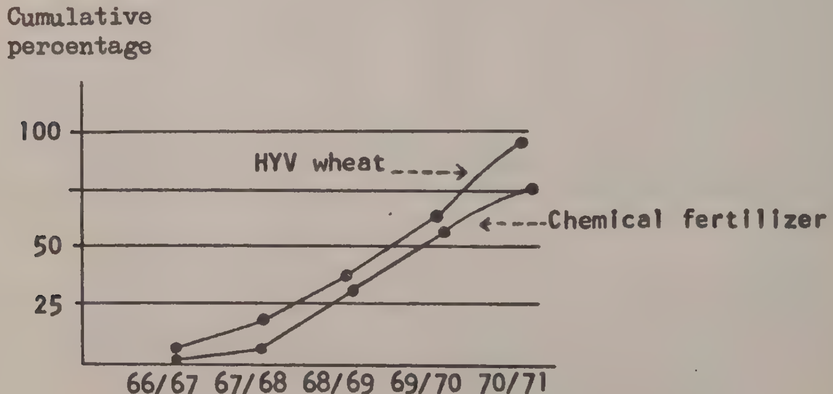
---

[95] Evidence suggests this. The average yield of HYV wheat in the district fell over time, indicating that the diffusion process had spread to poorer farm managers. See Rochin, *op. cit.*, pp. 297-298 and table 4.

[96] The assessment was through correlation analysis and significance testing. See *Ibid.*, p. 299.

[97] Everett M. Rogers, *op. cit.*, p. 313. The innovator is generally summarized according to the following characteristics: (1) younger age, (2) higher social status, (3) more specialized economic operation, (4) different type of mental ability, (5) ability to utilize information sources which are in closer contact with the origin of new ideas, (6) ability to utilize a greater number of different information sources, (7) more cosmopolite orientation, and (8) ability to be an opinion leader in the community.

Adoption time of HYV wheat and chemical fertilizer
in Hazara District, Pakistan, 1970



Source: Table 14, columns 3 and 6.

part on farmer's attitudes, sources of information, and the profitability of the innovation itself. Typically a S-shaped curve is produced when the time path of diffusion in an area is plotted. The diagram above, which was derived from the data in table 17, gives such a curve. In this case, the percentage of those who adopted the new inputs progressed in five years from virtually nothing to about 89 per cent and 73 per cent for HYV wheat and chemical fertilizers, respectively. This is about the same time span as it has taken innovations to spread from innovators to less innovative people in developed countries.[98]

Three further points are relevant here. Firstly, there is likely to be in any society a group of people to whom the adoptions do not spread. This may be due to the laggards' lack of ability to perceive benefits from a new innovation or lack of opportunity to capitalize from it.

Secondly, external influences, such as community and administrative structure, quite apart from farmer characteristics, tend to influence the manner and time span involved in technological diffusion. These external influences will later be discussed in greater depth.

Finally, the adoption process, where large-scale, wealthy, influential farmers first adopt innovations and, given a time lag, diffuse them to smaller farmers, tends to be consistent with what has been observed regarding changes in income distribution over time in areas where intensified agricultural programmes are successfully implemented. In these programmes, the incomes of the larger farmers, who are the innovators, rise initially and income distribution becomes more skewed. Over time, however, the pattern of income distribution may reverse itself as the less adventurous and less wealthy farmers accept and adopt the new technology. It is important to note, however, that the diffusion-cum-adoption process becomes more efficient where there is an institutional structure which complements it.

(b) *Risk and diffusion*

The economic discussion associated with the preceding sociological one concerning farmer characteristics and diffusion focuses on the concept of risk. Risk is a decision-maker's psychological discount of returns due to his uncertainty about the most efficient allocation of resources. Risk affects the process of technological diffusion and adoption by reducing the effective demand for technology below its marginal productive value. There are three distinct types of risk which can be identified as doing this. The first two types are due to an inability to predict future product demand and input supply and government pricing and budgetary policies in general. prices which are related to world supply conditions, The third type, which is of more concern here, is due to the inability to predict output quantities given input levels because of insufficient knowledge about the technology considered for use and/or lack of control over the availability of complementary inputs. Such risk is generally termed "technological" risk.

Some aspects of technological risk and the small farmer have been presented in preceding sections. The rejection or use of HYV grains and chemical fertilizers by small farmers at times of uncertainty are two cases in point. Clearly, small farmers judge the risk of fertilizer usage to be less in the dry season when conditions are more predictable. HYV grains, on the other hand, tended to be used more in the wet season, when the critical factor of water supply is more assured. From these examples and others it follows that the small farmer has to answer at least two questions in relation to adoption of any innovation: will the new method, taking its probable costs into account, produce an expected yield appreciably higher than the old method of production; and, is there a reasonable probability that something will go wrong and that the new method will result in a net yield below his minimum subsistence level?[99]

It has been pointed out that, even if the small farmer can expect a higher yield with a new technology, he is unlikely to change his method if the new technology may result in yields below his minimum subsistence level. Some of the factors which make for the possibility that the new technology may force the small farmer below his subsistence level, thus causing him extreme risk, can be conveniently classified as factors related to the physical conditions inherent to the proper use of the innovation and the socio-economic characteristics of the small farmer himself.

The physical conditions relative to an innovation which generates the most risk for the small farmer and which likely most affects his use of technology is the unavailability of an assured supply of complementary inputs for the innovation. For agricultural innovations, water is likely to be the most important complementary input. The unavailability of a steady, certain supply of water generally raises the subjective costs of using other factor inputs for the small farmer, which, in turn, discounts his expected returns on output. The effect of the uncertainty of weather, for example, has been studied in India with regard to the use of nitrogen fertilizer.[100] It was found that the use of fertilizer in maximizing profits decreased with increases of risk, which implies that risk increases the cost of fertilizer use. In the same vein, it has been demonstrated that the probability of the Philippine farmers of Central Luzon adopting high-yielding varieties of rice is greater for irrigated farms than for rain-fed farms where water supply is far more uncertain.[101] Again, this phenomenon can be viewed from the subjective costs which would be involved in adopting the new seeds, given supply uncertainties of other complementary factors.

---

[98] *Ibid.*, pp. 109, 110 and 114.

[99] Clifton R. Wharton, Jr., "Risk, uncertainty, and the subsistence farmer", *Development Digest*, vol. VII, No. 2, Agency for International Development, US Department of State, Washington D.C., April 1969, p. 7.

Another physical condition which affects the risk of adoption of an innovation is inherent in the differing techniques which must be applied in order to make the factor productive. For example, it is clear from subsequent discussions of HYV grains that they must be used not only in new factor combinations but also with new labour-intensive techniques, such as transplanting, broadcast fertilization, and intensive weeding procedures. A lack of knowledge of techniques may not necessarily lower average yield of the grain per acre, but it will surely increase the variance of the grain around such an average yield. The difference in yields between traditional (desi) wheat and HYV (dwarf) wheat grown by small farmers in the Hazara District of Pakistan in 1969/70 exemplifies this view:

> "Those [small farmers] who grew dwarf wheat obviously experienced the greatest variability in yield as indicated by a range of output from 6.5 to 26.6 maunds per acre. Desi growers, on the other hand, who have grown traditional wheat for several years, experienced a range in output from 4 to 13 maunds per acre. A farmer who shifted entirely to dwarf wheat would, by all indications, run some risk of getting lower than average yields usually obtained for desi varieties."[102]

The risk of falling below subsistence level, in the example above, is higher for using HYV grains than traditional ones because of the higher input cost to support HYV grain. On the other hand, the reward for using HYV grains may be greater, that is 26 maunds of wheat to 13 maunds. The combination of possible risk to possible reward in the mind of the small farmer likely explains the reason behind adoption being carried on in a step-by-step manner by adopting farmers.

The socio-economic characteristics of a small farmer also influences his subjective perception of risk in using technology. These socio-economic characteristics relate directly to the small farmer's ability to bear risk, which is related to his wealth, and his ability to understand the techniques associated with the new innovations, which is related to information.

Personal wealth has an important effect on a farmer's ability to bear risk as it is the hedge which he must have in order to bear the failure of adopting an inappropriate innovation. Clearly, a small farmer, being closer to the subsistence level and hence to the extinction of his family's livelihood, faces a potential risk that is greater than that of a wealthier farmer. Thus, it can be expected that income is the best predictor of innovative (risk-bearing) behaviour, as it has proved to be in many studies.[103]

Information of correct complementary factor use is also related to risk. The greater the amount of information a farmer receives about the use of new innovations, the lower the risk of using the innovation inappropriately, thereby increasing the chances of his family's survival. Many studies have indicated the validity of the above by indicating that the level of expertise required with recommended cultivation practices and the amount of extension contact are positively related to the adoption of new technology.[104]

Potentially, the channels of information which a farmer may rely on are many: mass media, personal contacts, extension agents and *ad hoc* experiences. In reality, experience indicates that the information sources which a farmer comes in contact with depend on socio-economic factors, such as wealth and status, and external factors, such as aggressive extension work and the organization of the farmer's community.

The conclusions which can be drawn from the effect of socio-economic characteristics on subjective perception of risk is that the small farmer, because of his lack of wealth and information, is less able to bear risk than the large farmer. A lessening of risk for the small farmer is likely to come about only if some form of crop insurance could be introduced, a more stable supply of inputs and predictable prices could be obtained, and knowledge was more easily obtainable and more evenly distributed from agricultural extension services. Such risk-reducing mechanisms would necessitate corresponding institutional changes.

---

[100] See A. S. Kahlon and P. L. Sankhayan, "Economics of fertilizer use in India" in *FAI-FAO Seminar 1974 on Optimizing Agricultural Production under Limited Availability of Fertilizer*, December 1974, New Delhi, p. 13, table 7.

[101] M. Magahas, "An economic analysis of the diffusion of new rice varieties in Central Luzon", unpublished Ph.D. thesis, University of Chicago, 1970.

[102] R. Rochin, "A micro-economic analysis of small holder response to high-yielding varieties of wheat in West Pakistan", unpublished Ph.D. dissertation, Michigan State University, 1971.

[103] See John W. Gartrell, E. S. Wilkening and H. A. Presser, "Curvilinear and linear models relating status and innovative behaviour: A reassessment", *Rural Sociology*, vol. 38, pp. 391-411; and Everett Rogers and F. Floyd Shoemaker, *Communication of Innovations: A Cross-cultural approach* (New York, The Free Press, 1971), especially the generalizations and related studies on p. 187.

[104] Prodipto Roy and others, *op. cit.*, especially table 22; and U. N. Bahti, *op. cit.*, pp. 36-47. Also see the sections of this chapter on "Extension service schemes" and "Farmer characteristics and diffusion".

(c) *Peasant community and diffusion*

The preceding two sections have examined the diffusion of innovations in relation to the socio-economic and risk-related characteristics of small farmers. There is also the question of the diffusion of technology from sources external to the individual small farmer. Because of data limitations and the nature of the subject, however, discussion in this section will be more general than in the preceding sections.

The first problem to be considered is the role of the peasant community in the diffusion of technology. A peasant community is defined as the local socio-political environment in which a farmer resides. In many countries of the ESCAP region, this environment is communal by nature, meaning that it is a local and focused society having decision-making institutions within its own frame.[105]

Several recent studies have investigated the relationship between peasant community organization and the diffusion of technology.[106] A study of Malaysian villages investigated the conditions under which increased productivity occurred as a result of the diffusion of innovations within the community.[107] Three interconnected factors were associated with productivity growth: the co-operative attitudes of village members, the characteristics of village leadership (active or passive), and the use of modern agricultural technology. The first two factors, co-operative attitudes and leadership, tended to control the use of the third, technology usage, by inhibiting or promoting the amount of information transmitted from farmer to farmer. Similar work in the Philippines and in India[108] has arrived at the conclusion that adoption is a function of the organization of the community in which a farmer resides.

The studies presented above suggest that community organization is related to access to information and that such organization is highly important in the process of technical diffusion. Within the framework of community organization, two general factors seem to be directly involved in the differing ability of communities to diffuse information about innovations. The first is the system of communication within the community itself and the second is the community's organization relative to its mobilization and allocation of productive factors.

A central question concerning the social determinants of farmer response to new technologies is the social processes through which such technologies are communicated to farmers. In general, there are three such sources at work in the ESCAP region: opinion leaders, mass media and organized group forums. It is generally recognized that interpersonal as distinguished from direct media communication comprises an important source of information and influence.[109] In fact, it has been found that information is generally gained from opinion leaders who are attentive to and pass on information from mass media sources. Opinion leaders seem to play a particularly critical role as gatekeepers for agricultural information entering the community.

In studies of agricultural innovation in Indian villages, it has been found that opinion leaders are normally of high-caste origin, are relatively well-off, are literate and have far greater contact with extension agents than other villagers.[110] These same studies show that such high-caste opinion leaders comprise important sources of influence regarding agricultural innovation and are frequently sought out for agricultural advice. A further finding, that such opinion leaders are often more innovative than other farmers, points to their strategic role in patterns of community adoption of new technologies as seen in foregoing sections.[111]

---

[105] The variety of peasant communities in the ESCAP region is extensive. For purposes of simplified analysis, the low-income, communal peasant community, such as is found in Malaysia, Indonesia and parts of Thailand, will be the focus of the discussion in this section.

[106] In addition to the studies described in the text, see: K. Ashraf, "Agricultural modernization in the southern Philippines: A study of causal interaction among economic, social, psychological, and communication determinants", unpublished Ph.D. dissertation, Cornell University, 1973; R. Singh, "A behavioural contingency theory of adoption and diffusion of agricultural technology in less developed countries", unpublished Ph.D. dissertation, University Microfilms, Ann Arbor, Michigan, 1973; A. Singh, "Community factors in farm practice adoption", *Man in India* (1973), vol. 53, No. 4, pp. 368-386; and P. M. Shingi, "The dynamics of community change in rural India: A causal model", University Microfilms, Ann Arbor, Michigan, 1972.

[107] John C. Williams, *op. cit.*, especially chapter 7.

[108] Syed Abdul Qadir, "Adoption of technological change in the rural Philippines: An analysis of composition effects", unpublished Ph.D. thesis, University Microfilms, Ann Arbor, Michigan, 1966; Anant Saxena, "System effects on innovativeness among Indian farmers", unpublished Ph.D. thesis, Michigan State University, 1968; and A. Saxena, "System versus individual effects: a cross-national study of agricultural innovativeness", paper presented at the annual meeting of the Rural Sociological Society, Washington, D.C., August 1970.

[109] See P. F. Lazarafeld, B. Berelson and H. Gaudet, *The People's Choice* (New York, Columbia University Press, 1948); and B. Katz and P. F. Lazarafeld, *Personal Influence* (New York, Free Press, 1964).

[110] This and subsequent references to Indian village communications draw on J. Kivlin and others, *Communication in India* (Hyderabad, National Institute of Community Development, 1968); and Lalit K. Sen, *Opinion Leadership in India* (Hyderabad, National Institute of Community Development, 1969).

The mass media also have an effect on village attitudes and propensities to innovate, although not to the same extent as opinion leaders. Whereas opinion leaders have a direct effect on the community, the mass media have been found to induce a generalized receptivity to information and change.[112] Mass media disseminate the possibilities of new technology as well as raising aspirations. However, given the need to adapt technologies to local conditions and the frequent lack of farmer comprehension of technical information transmitted via the mass media, new techniques are being explored in the dissemination of directly usable technical information. For instance, in order to capitalize on the attitudinal impact of mass communications as well as to ensure comprehension and adaptation to local conditions, the Governments of several countries, including India and the Philippines, have instituted organized radio listening forums, whereby farmer groups listen to and then discuss the information content found in agricultural radio programmes.[113] Such groups seem to derive success from the change in village attitudes and norms, and this is especially important in view of the propensity of farmers to turn to other farmers for agricultural advice and suggestions.

In an ideal world, communications within villages would follow the following pattern: opinion leaders who have gained information from mass media channels, and perhaps working through forum groups, diffuse information about new innovations throughout their community. However, disruption of this ideal pattern is generally the rule. Such disruption appears to come from two direct sources: from the opinion leaders themselves and from the community attitudes towards co-operative behaviour.

It appears that opinion leaders may not always be a positive force in agricultural and community development. Often information imparted by village élites is distorted, and this frequently reflects the desire on the part of landowners and well-to-do villagers to preserve the *status quo*.[114] A study of communication systems in innovative and non-innovative villages in India underlines this point.[115] The study revealed that the communication system within non-innovative villages had no flow of information from farmers of higher socio-economic status (who had information) to those of lower socio-economic status. In the innovative villages, however, a two-way vertical communication flow between differing socio-economic status groups was evident. Such evidence brings into question the traditional methods of extension services which rely heavily on the opinion leaders to diffuse information downwards.

The second factor which makes for disruption in the flow of communication, and tends to be closely associated with opinion leadership, is the co-operative attitude of the village membership. The Malaysian study cited earlier correlated attitudes of social co-operativeness with leadership and technological diffusion.[116] In this case, a more active, consensual leadership was associated with attitudes of co-operation throughout the community, and this allowed for the free flow of information concerning new agricultural technology. Very little work has been done on this subject in Asia, but similar conclusions have been drawn from studies made outside the ESCAP region[117] If nothing else, such studies indicate that communities differ one from the other in terms of co-operative behaviour. Such knowledge should be built into any strategy for inducing agricultural modernization via the individual farmer and his community.

A second factor explaining the differentiation between communities is that of the non-market determinants of the mobilization and allocation of productive factors. Kinship is one, if not the most important basis for the mobilization and use of agricultural factors of production in traditional low-income peasant communities in Asia and the Pacific. For instance, kinship-oriented inheritance systems are of major importance in the allocation of land to potential claimants. The degree of fragmentation and size of holdings, or degree of concentration of land-holdings, is similarly influenced by kinship-related inheritance rules which cover the division of holdings among heirs. Finally, mobility of land rights among potential users may be constrained by rules against alienation of land to non-kinsmen.

Labour, and command over its organization and use, is also often mobilized and determined by the cohesiveness and size of the kinship group, and one's position within that group. If such ascribed characteristics as birth-order, age, sex, or relationship to family elders preclude a farmer mobilizing labour for labour-intensive technologies, such as those necessitated by multiple cropping, he may find it difficult to obtain the labour input he needs. Conversely, potential workers might themselves be constrained to meet heavy family or kinship labour obligations before hiring themselves out to others.

---

[111] See the section on "Farmer characteristics and diffusion" for similar examples drawn from Malaysian and Pakistani data. Also see S. A. Rahim, *Diffusion and Adoption of Agricultural Practices*, 2nd ed. (Comilla, Pakistan Academy for Rural Development, 1963).

[112] Everett M. Rogers, "Motivations, values and attitudes of subsistence farmers", in Clifton R. Wharton, Jr., ed., *Subsistence Agriculture and Economic Development*, Aldine Publishing Co., 1969.

[113] F. Librero, "The influence of radio in the adoption of recommended farm practices in Barrio Halang, Binar, Laguna", unpublished B.S.A. thesis, Department of Agricultural Communications, University of the Philippines at Los Banos College, Laguna, Philippines, 1968.

[114] F. Fliegel, J. Kivlin and G. Sekhon, *op. cit.*, pp. 1,978-1,982.

[115] K. N. Singh and Ch. Shankaraiah, "Socio-economic status and its influence on communication in a progressive and traditional village", *Behavioural Sciences and Community Development*, vol. 7, No. I, March 1973, pp. 64-69.

[116] John C. Williams, *op. cit.*, especially chapter 7.

[117] F. C. Fliegel, "Literacy and exposure to instrumental information among farmers in southern Brazil", *Rural Sociology*, 31.15, 1966.

It is clear, however, that, in many peasant communities in the ESCAP region, traditional kinship groupings have long ceased to have a strong influence on resource mobilization. Especially in areas of land scarcity, resource mobilization and allocation often depend on the operation of what might best be termed "dependency systems", the most important of which exists between landowners and landless farmers. An example of such a traditional system is the *jajmani* system of India, where land-owning higher-caste persons are related to their landless lower-caste tenants through a system of fixed mutual obligations legitimated by ritual and symbolic differentiation.[118]

Traditional communal or co-operative patterns for resource mobilization are also in evidence in several countries of the region. The most widespread of such co-operative systems is based on reliance on communal labour groups for the maintenance of irrigation systems, public facilities and buildings, and roads. In northern Thailand, for instance, communal irrigation groups, based on the need for irrigation works outside the purview of government irrigation projects, play an important role.[119] Also widespread are communal labour exchange systems which rely for their effectiveness in informal social relationships rather than calculated reciprocity or wages. Such systems still function in northern Thailand, Java and the Philippines.[120] In Java, too, one finds rotating credit associations which rely less on contract than on social bonds of trust.[121]

The power and cohesion of kinship relations, dependency systems and communal group relations are derived largely from the need for social security, social status and acceptance regarding economic resources. The farmers who most need the assistance and support of fellow villagers, therefore, are those who also feel most constrained to contribute to communal labour and otherwise meet group obligations. Persons who are marginal to community life or have outside sources of income or resources are less likely to participate in such groups and thus, from the standpoint of social sanctions, are most free to innovate even where such innovation interferes with community obligations. An example of this can be found in the activities of northern Thai farmers who sometimes work two sets of fields, one near the village, and the other, at some distance from the village, which they have cleared for the cultivation of non-traditional cash crops. The traditional crops planted near the village are cultivated with the aid of communal mobilization systems. In distant fields, or in new crops around which traditional mutual assistance groups have not formed, farmers must exercise their own initiative, and are subsequently freer to innovate.[122] In this sense, innovation by marginal persons or in new economic activities is easier from the standpoint of negative social sanctions, but perhaps more difficult from the standpoint of the mobilization of needed resources, including knowledge of proper cultivation patterns relative to them.

Over time, the traditional patterns of resource mobilization and allocation have been altered, although this alteration has not occurred with similar effect in each and every peasant community. The common pattern, however, is for an erosion of the traditional kinship and communal economic system to be associated with the inadequacy of established economic practices, especially when seen in the context of increasing aspirations and new opportunities within and outside agriculture. To the extent that conformity to community economic norms is dependent upon reliance on family and community for resources, status and personal security, new opportunities stemming from the acquisition of new external resources reduce local dependence, and with it the necessity to conform. Pressure is thus created for individual economic innovation and the appropriation by individuals of returns from such innovation. For example, in northern Thailand, farmers who clear new land for cash crops rely heavily on urban merchants for capital, technical information, farm equipment and seed, and marketing outlets. These farmers by-pass traditional communal systems of labour sharing and kinship-based capital-mobilizing systems.[123] The monetary rewards from such new agricultural activities are normally retained exclusively within the immediate family group.

---

[118] For discussion of the *jajmani* system, see S. Epstein, "Customary systems of rewards in rural India", in George Daltan, ed., *Economic Development and Social Change* (Garden City, N.Y., The Natural History Press, 1971). Also see Oscar Lewis and Victor Barnouw, "Caste and the *jajmani* system in a north Indian village", in J. Potter, M. Diaz and G. Foster, eds., *Peasant Society: A Reader* (Boston, Little, Brown, and Co., 1967).

[119] M. Moerman, *Agricultural Change and Peasant Choice in a Thai Village* (Berkeley, University of California Press, 1968), chapter 5.

[120] *Ibid.* Also see R. Weitz, ed., *Rural Planning in Developing Countries: Report on the Second Rehovoth Conference*, Israel, August 1963 (Cleveland, The Press of Western Reserve University, 1966), pp. 169-223.

[121] C. Geertz, "The rotating credit association" in *Economic Development and Culture Change*, vol. 10, pp. 1,962-1,963, and Ace Partadireja, "Rural credit: The ijon system", *Bulletin of Indonesian Economic Studies*, vol. X, No. 3, November 1974, pp. 54-71.

[122] M. Moerman, *op. cit.*

[123] *Ibid.*

The breakdown of traditional dependency relations has also had the immediate consequence of eliminating one source of social security for landless labourers and small farmers who have traditionally relied upon local élites to provide assistance in times of distress. Conversely, the breakdown of traditional dependencies frees land-holders and well-to-do farmers from traditional obligations to others, and permits them to rationalize farming, consolidate holdings, and introduce labour-saving innovations. The implication of such change may be for the larger farmers to implement measures which do not favour small farmers, such as in the case of the larger farmer reclaiming land from a tenant.

In terms of community action, the capacity of farmers to introduce technologies which require concerted or pooled effort and investment may be initially jeopardized when traditional economic relations are replaced by commercial activities. In India, it has been found that community development programmes are least successful in the most economically developed, hence, commercial communities.[124] In northern Thailand, increasing commercialization and individualization are making it more and more difficult for villagers to maintain communal irrigation facilities. Thus, activities demanding community action, such as the pooling of land, labour and capital by small farmers in order to take advantage of innovations such as those associated with the green revolution and/or to mobilize the community for public work or other co-operative projects, may be inhibited by the breakdown in traditional economic institutions. Such problems reduce the capacity of Asian farmers to introduce many new technologies.

The peasant community is a double-edged sword in its relation to the diffusion of innovations. On the one hand, its organization may impede the flow of information about modern agricultural technology because of the desire of the traditional leaders to maintain their social position. On the other hand, change in traditional organizational patterns often leads to the breakdown of traditional peasant co-operative, communal activities from which the élite drew their power and the non-élite their security. Hence, both maintenance of the social *status quo* and its change tend to inhibit the flow of technological knowledge to farmers, especially those who have few resources. In the first case, traditional leaders may not pass on information about modern innovations in order to secure or enhance their position in the community. In the second case, community co-operation on projects needing co-operative activities, such as farmers' associations and public works projects, may be severely hampered. Such constraints tend to imply the need for the establishment of institutions external to the peasant community which passes knowledge of technology suitable to small farmers, and which could work to overcome difficulties associated with peasant community organization. An analysis of the problems affecting one such external agricultural institution, namely, agricultural research and extension services, in diffusing technology to small farmers is presented in the final section of this chapter.

(d) *Research, extension and diffusion*

External sources of information are necessary in order to acquaint the small farmer with new technology. Many studies exemplify this point. A study of Punjab farm modernization, for instance, indicates that, in villages where there was a high degree of adoption of agricultural innovations, institutional aid for the community and communication with the community were major factors in explaining such adoption.[125] Organizational aid was identified by a set of questions about sources of financial help and agricultural advice. Communication involved such things as extension services, mass media operations, trustworthiness and practicality of information. The variables concerned measured activities external to the community which supply the farmer with services directed toward improving his and the community's use of agricultural innovations. Moreover, the more services and information utilized by the community, the greater is the community's innovativeness. A study of rural communities in the Republic of Korea suggests similar conclusions: it was found that the more institutional integration of the production process (the more services there are available), the greater yield, income *per capita*, marginal product of land and use of labour per unit area.[126]

The process surrounding the transfer of technology to small farmers through institutions external to the peasant community involves a large number of not necessarily well co-ordinated agencies. The two most important agencies for the small farmers are research institutions, which release approved technology for adoption, and extension agencies which disseminate it.

Improvements in farm technology are the results of applied research activities at various research institutions. The prime mission of these research institutions is to develop techniques which are superior to existing ones. There are several attributes which should be incorporated into an innovation before it is released from the research institutions for transfer to the farming community. They comprise: *relative advantage,* or the degree to which an innovation is perceived as better than the idea it supersedes in terms of total production, profitability, ease of operation, etc.; *compatibility,* cultural and physical, or the degree to which the innovation is consistent with the agro-physical climate, existing culture and past experiences of the farming community where the innovation is to be transferred; *simplicity,* or the degree to which the innovation is readily understandable and usable by farmers; *divisibility,* or the degree to which the innovation could be tried on a limited scale; *communicability,* or the degree to which the efficient use of the innovation is easily communicable to farmers.

---

[124] I. Adelman and G. Dalton, "A factor analysis of modernization in village India", in George Dalton, ed., *op. cit.*

[125] Harjit S. Sandhu and Donald E. Allen, "The village influence on Punjabi farm modernization", *American Journal of Sociology*, vol. 79, No. 4, pp. 967-979.

[126] Jil Hyun Lee, "The effects of institutionalized integration on the rice productivity growth in Korea", *Journal of Korean Agricultural Education*, vol. 6, No. 1, 1974, pp. 31-53.

However, there are, several problems which make it difficult to achieve the total incorporation of the elements necessary to have a technology which is relatively advantageous, compatible, simple, divisible and communicable. One of these is the need for large-scale testing of the new technology after the research results are available. The primary purposes of such testing is to identity the operational problems of the transfer of technology in a given socio-economic milieu.[127] In many instances, the innovations are not fully tested under diversified local conditions before they are released. Many high-yielding varieties evolved and released cannot establish themselves in the soil and agro-climatic conditions in the various regions of a country. A study has reported that, in the State of Uttar Pradesh, India, some of the high-yielding varieties of wheat released by the local research station were rejected by the farming community within a year, despite the superior aspects of quality and yield claimed by the scientists. In this state also, the farmers abandoned hybrid *jowar* cultivation because of the high incidence of pest and diseases, poor quality of grain, low consumer preference and high cost of seed.[128] Such illustrations raise doubts concerning proper testing and tailoring of varieties and practices to field conditions before they are released for general adoption. One of the reasons for such haste has been the "race for release of varieties by all universities and institutions without establishing their techno-economic superiority over the existing ones."[129]

Another basic problem is lack of communication between farmers and research scientists. Research scientists are supposed to be aware of field problems, through the feedback given by the farming community directly or through extension agencies. However, the feedback on field problems to scientists is extremely meagre and, as a result, the research system functions somewhat in isolation. This prevents the research scientists from developing adequate sensitivity to the conditions and requirements of the ultimate users of their research. Quite often, improved technologies are not oriented to field conditions and "the information developed by the research institutions are mostly 'publication-oriented' rather than 'application-oriented'."[130]

A further problem is that most agricultural research institutions have had increases in agricultural output as a primary goal. This has not only lead to the neglect of research oriented towards the attainment of social objectives but, to an array of factor prices which favour capital-intensive techniques and, hence, to the underutilization of labour. It is difficult to find improved technology which can be profitably used under moderate or low levels of soil fertility, irrigation facilities and available management skills. Most modern farm technology has been designed for farmers with big holdings and adequate irrigation as well as other farm resources.

Although many innovations are not of a type useful to small farmers, many others could be profitably adopted by members of the farming community. It has been pointed out that more than 20 per cent of the technology available to Indian farmers has yet to be adopted.[131] Moreover, among adopters it is rather difficult to find those who have fully adopted the recommended agricultural practices. In this case, the problem is how to inform farmers effectively about these innovations and how to aid the farmers in adopting them.

A network of extension institutions has been created in all regional countries in order to promote the adoption of improved technology throughout the agricultural sector.[132] In India, one of the most important extension institutions is the Community Development Programme which was introduced in 1952. This programme now covers 566,850 Indian villages located in 5,092 blocks. Initially, the agricultural extension programme was embodied in the community development programme which aimed to carry out various socio-economic and cultural development programmes for the welfare of the community. After several years, new forces, such as the population explosion, the urgent need to accelerate food production, and the breakthrough in agricultural science and technology, led to the creation of some intensive and specific programmes focusing primarily on agricultural development, all of which had an extension component to their organization. These included the Intensive Agricultural District Programme, the High Yielding Varieties Programme, the National Demonstration Programme, the Multiple Cropping Programme, the Pilot Project on Dry Land Agriculture, the Drought Prone Area Programme, the Tribal Development Programme, the Special Programme for Development of Small Farmers and the Special Programme for Development of Marginal Farmers and Agricultural Labourers. The first seven programmes were set up to develop the farming community in general (for both large and small farmers), while the last two programmes were organized specifically to aid the small and marginal farmer.

---

[127] Government of India, National Commission on Agriculture, "Interim report on organizational aspects of All India Co-ordinated Research Projects" (mimeo.), 1973, pp. 37-38.

[128] Daulat Singh, "Problems of transfer technology", in Daulat Singh and J. S. Pandey (ed.), *Transfer Technology — Systems and Constraints* (Kanpur, U.P. Society of Extension Education and Rural Development, 1974), p. 9.

[129] *Ibid.*

[130] R. Dwarakinath and Gowda Channe, "Constraints to the transfer of technology" in Singh and Pandey, *op. cit.*, pp. 36-37.

[131] Dharampal Singh, "Techno-economic dynamics of technology transfer in agriculture", *Journal of Rural Extension,* vol. I, No. 2, August 1973, p. 1.

[132] The term, "extension institution" refers to all types of institutions, government, semi-government or voluntary, which have been set up for educating and motivating rural people in order to bring "desirable" socio-economic changes to the rural areas.

However, as intimated earlier, there is evidence which suggests that, even with institutions specially designed for the small farmer, such as are found in India, extension services have not reached him. Some of the factors responsible for this breakdown are: the lack of a farmer-oriented programme, the lack of an educational approach, an ineffective use of extension methods, the lack of co-ordination among various development departments, the lack of an integrated approach, the lack of dedication and knowledge among extension workers, supervisors and their administrators, and in general, the absence of an extension programme to aid the organizational efforts of small farmers.[133] Some of these problems will be discussed below in detail.

Many agricultural extension programmes are centrally planned and they often fail to take local problems into account. For example, as early as in 1958, it was reported that the Japanese methods of paddy cultivation and sericulture were not suited to the western parts of Uttar Pradesh, India. However, as the local extension service was directed from state headquarters to popularize these practices, the block officials had to devote considerable time to them, neglecting other practices based on local conditions which should have been given priority.[134] Similarly, the project officials had to make efforts to dispose of certain kinds of undesired seeds sent under the direction of the state headquarters, even though there was no local demand for them because of their being unsuitable for local soil and climate conditions. In this case, extension officers were more concerned with complying with the orders of their superiors than with moulding the programmes according to local conditions. In other words, they were more programme-oriented than farmer-oriented.

The process of transfer of technology is not complete unless the improved practices are truly accepted by the people so that, without further persuasion on the part of the extension staff, they continue these improved practices. Quite often, however, extension programmes lack such an educational approach. Many times, the field extension workers lay more emphasis on achieving physical targets than on convincing the farmers of the utility and superiority of the improved practices. To overcome this problem in India, many farmers had to purchase an iron plough before obtaining an agricultural loan.[135] In a recent survey in Uttar Pradesh, farmers reported that they purchased potassic fertilizer, not because they were acquainted with its use and profitability but because they had to purchase it along with urea.[136]

Demonstration methods, in the form of pilot agricultural plots etc., are regarded as one of the most efficient methods for promotion of improved practices. However, in many cases, demonstration plots were not properly conducted. In some instances, even the farmers whose lands served as demonstration plots often did not know the technical details of the new practices involved.[137] Moreover, it has been observed that semi-technical reports related to agricultural innovations which are published in the supplements of newspapers are not read by 90 per cent of the readers.[138]

Systematic planning according to the needs and available resources of the farming community in general, and of the small farmers and their family units in particular, is necessary for the success of any extension programme. While fixing the target under the High Yielding Varieties Programme, the availability of resources in terms of fertilizers, seeds, irrigation, pesticides, etc., has often not been given due consideration.[139] The failure of the early

---

[133] N. K. Jaiswal and H.P.S. Arya, "Barriers to adoption of improved technology in agriculture", *Community Development and Panchayati Raj Digest*, vol. 6, No. 1, July 1974, pp. 30-41.

[134] S. C. Dube, *India's Changing Villages: Human Factors in Community Development* (Ithaca, N.Y., Cornell University Press, 1958), p. 93.

[135] N. K. Jaiswal, "A study of factors associated with low level of adoption of improved agricultural practices", Ph.D. thesis in Agricultural Extension (unpublished), Indian Agricultural Research Institute, New Delhi, 1965.

[136] D. C. Seth, "Kya kisan bhi ab hartal karen" (Hindi), *Dharmyug*, vol. XXIV, No. 50, 16 December 1973, pp. 6-10.

[137] N. K. Jaiswal, *op. cit.*

[138] Daulat Singh, "Problems of technology transfer in Uttar Pradesh", *Journal of Rural Extension*, vol. I, No. 2, August 1973, pp. 7-14.

[139] Dharampal Singh, *op. cit.*, p. 5.

BIMAS programme in Indonesia is another example.[140]

Clearly successful extension work requires enthusiastic and dedicated extension agents. Yet this is often lacking. One of the main reason given for the apathy of extension agents in India is that, even with long service, most extension officers in community development blocks have not received any in-service promotion nor have they any hope of getting promotion in future. Similar situations occur for most countries in the region. Moreover, several studies point out that the knowledge of the village-level worker is outdated in the present era of sophisticated modern agricultural technology.[141]

These problems of extension institutions affect transfer of technology in a farming community irrespective of the size of holding of the farmers. Small farmers are further affected by the fact that extension workers tend to neglect them as a group. Even in the early enthusiastic years of the Indian community development programmes, some 70 per cent of the benefits of the extension programmes went to the rural well-to-do.[142] Many studies validate the commonly held view that the upper socio-economic sections of the rural community get preferential treatment from village-level workers.[143] This is because extension workers find it easier to achieve their physical targets by helping larger farmers. This recognition has prompted several Governments to create institutions for exclusively aiding small farmers. An example of this approach is the Small Farmers Development Agency (SFDA) and the Marginal Farmers and Agricultural Labourer Agency (MFAL) in India. At present, 46 SFDA projects covering 54 districts and 41 MFAL projects covering 47 districts are operating in different parts of the country. The services of the existing field extension workers are being utilized at the village level for both programmes. Both programmes have undoubtedly made considerable progress with regard to minor irrigation, programmes for the supply of agriculutural inputs, credit, etc. But, even so, it has been observed that the SFDA and MFAL extension workers often tend to neglect the small and marginal farmers. The All-India National Seminar on Small/Marginal Farmers and Agricultural Labourers (1972) brought out the fact that extension staff in selected districts had by and large failed to provide sufficient guidance and assistance to the SFDA and MFAL authorities in identifying the problems of small and marginal farmers and agricultural labourers and in formulating appropriate programmes for implementation.[144]

In a study of small farmers conducted in Maharashtra, India, it was pointed out that "there is a tremendous gap between the proposed state policy and its actual implementation. From the findings of this study, it can be inferred that when funds are earmarked exclusively for the weaker sections, then somehow the organization loses its capacity to absorb even a limited quantity of funds. It was also found that a substantial share of the benefit of special schemes for small farmers goes to large holders, especially those having patronage of the block and district level political leaders. There was little or no direct communication between the district and block staff, on the one hand, and the clientele, namely, the small farmers and agricultural labourers, on the other. At every level, there were professional politicians working as intermediaries."[145]

Another study, conducted in Punjab, concludes that "we have sufficient evidence to prove that proper attention has not been given to the problem of identification of small farmers. It is our impression that the SFDA programme is treated as a programme of extended benefits and farmers — big or small — try to make suitable adjustments to pocket these benefits. Field staff — partly in their enthusiasm to fulfil the targets and partly in order to enlist the co-operation of influential persons for the propagation of the programme — are willing to co-operate with the farmers. The result is that all the benefits extended under the scheme have not gone to the small farmers and leakages in the real effectiveness of the programme have been found to be not less than 30 per cent."[146] Another study conducted in one MFAL district in West Bengal indicated that, while the MFAL programme was intended to be limited to marginal farms, only 6 of the 58 participant households selected for the study had between 2.8 and 4 hectares of land.[147]

---

[140] Gary E. Hansen, *op. cit.*, Dick Franke, *op. cit.*, BIMAS Evaluation Study, *op. cit.*, chapter 5.

[141] For instance, see the following: D. P. Singh, "Proposal for a new extension organization", *Kurukshetra*, vol. XXI, No. 1, 1 October 1972, pp. 32-37; S. R. Sen, *Modernizing Indian Agriculture*, vol. I, (New Delhi, Ministry of Food, Agriculture, Community Development and Co-operation, Government of India, 1969), p. 42; M. Kistiah, "The village level worker – redefining the role", *Quarterly Journal of the Local Self Government Institute*, vol. 40, No. 4, 1970, pp. 295-304; Dharampal Singh, *op. cit.*, pp. 1-6.

[142] See S. C. Dube, *op. cit.* and section in this chapter on farmer characteristics and diffusion.

[143] T. K. Chakravarty and others, "The image of the village level worker as perceived by villagers", *Behavioural Sciences and Community Development*, vol. IX, No. 1, March 1975, p. 78.

[144] Government of India, National Commission on Agriculture, "Interim report on reorientation of programmes of small farmers and marginal farmers' and agricultural labourers' development agencies", mimeo., August 1973, pp. 41-42.

[145] V. R. Gaikwad, *The Small Farmers: State Policy and Programme Implementation* (Hyderabad, National Institute of Community Development, 1971).

[146] University of Delhi, Agricultural Economics Research Centre, *Small Farmers' Development Programme in Amritsar — Ferozepur (Punjab) — An Evaluation of Progress and Problems.*

[147] Viswa Bharati Agro-Economic Research Centre, *Study on Marginal Farmers and Agricultural Labour Development Programmes in the District Bankura, West Bengal*, Shantiniketan, 1973.

The preceding discussion leads to the conclusion that many changes are necessary in both the structure and the process of working of an extension service. Mere launching of special programmes, such as the Indian SFDA and MFAL, with certain modifications in the administrative structure at the district level, does not necessarily improve the extension approach to the weaker sections of the farming community. It appears that more important steps must be taken to treat specific problems by instituting localized need-based programmes, upgrading the knowledge and skills of the extension worker, and establishing a suitable incentive system for economically aiding small farmers and encouraging them to organize themselves within a co-operative institution.

4. *Conclusion*

The first part of this section of the *Survey* investigated the small farmer's experience with the modern technology of the green revolution. In the course of the discussion it became clear that the small farmer has lagged behind in the adoption of modern agricultural inputs compared with farmers who have more resources at their disposal. There are many reasons, both social and economic, for small farmers lagging behind in new technology adoption. Cost considerations, especially in relation to mechanization, the improvement of land-cum-irrigation facilities and so forth have placed some technologies out of the reach of small farmers. Co-operative activity necessary for efficient use of certain inputs, such as that needed for water management, have also been found wanting. Moreover, lack of knowledge about the technical use of a modern agricultural input has meant lack of or inefficient adoption of the input.

However, the small farmer's experience with technology is not totally disillusioning. In fact, it appears that, after adopting any modern technological input, the small farmer uses that input intensively. In the case of a relatively costless input, such as the HYV grains, there is a clear tendency for the small farmer to use the new seed with greater intensity than larger farmers. With a more costly product, such as fertilizers, there is a mixed tendency: in upland farm areas there is some evidence suggesting that the small farmer may attempt to compensate for poor physical conditions by intensively using fertilizers in times when risk is low. In delta farm areas, however, there is little evidence that the small farmer uses fertilizers intensively. Finally, as regards mechanization, in areas where double cropping is established, there is a tendency for the small farmer to take advantage of the power tiller and tube-well through forming loose organizational confederations. In practical terms, all these examples point to the responsiveness of small farmers to modern agricultural inputs, provided that they have the knowledge and opportunities to adopt them.

The latter part of this section of the *Survey* attempted to evaluate the major factors associated with the lag in adopting modern agricultural technology by the small farmer. The discussion began by evaluating the position of two characteristics associated with the farmer himself: his socio-economic position and his concern with uncertainty. It was suggested that the wealthier, higher-status, more influential farmer had more contact with sources of information and institutional arrangements which were designed for the benefit of all farmers. Because of these connexions, the wealthy, high-status, influential farmer could bear more risk than the small farmer, who has few resources to fall back upon in times of set-backs in his agricultural production.

External sources, which affect all farmers, were evaluated by discussing the peasant community and the two services primarily involved with devising and diffusing technology to the small farmer, namely research and extension services. It was argued that the peasant community was not necessarily structured in such a fashion as to allow the free flow of information about the new agricultural innovations. In particular, it was suggested that farmer leaders may in some cases deter the flow of such information in order to preserve the *status quo*. It was further argued that the recent process of social change in rural areas of the ESCAP region has contributed to conditions unfavourable to the co-operative effort required in order to achieve economic progress. The major element in both the structure of the communities and the process of social change which contributed to the breakdown of technological diffusion was a lack of unifying, dynamic leadership at the community level.

Research and extension services were the final external factors investigated in relation to diffusion of technology to the small farmer. In the course of the discussion of these two services, it became clear that research had been biased away from small farmers, and that existing extension services in the region were of dubious use to the small farmer.

Which of the four factors — farmer characteristics, risk, peasant community, and research and extension services, is the most important in explaining the diffusion of technology to small farmers is difficult to establish because of the lack of empirical information. Some evidence, however, indicates that external influences, particularly the organization of the peasant community, surpasses a farmer's socio-economic characteristics and his aversion to risk as the factor most associated with the slow diffusion of technology.[148] This is likely because the organization of a peasant community controls the flow of information about agricultural innovations to farmers, whereas a farmer's socio-economic characteristics and his aversion to risk control adoption of an agricultural input only after receiving information about it.

The small farmer's experience with modern agricultural technology, and the analysis of the diffusion process related to such technology, point towards several areas of institutional reform. Clearly, if modern agricultural technology is to be more rapidly adopted by small farmers, institutional reforms will be required to provide a greater flow of information about modern inputs and their efficient use. Moreover, such institutional reforms must also provide for greater opportunities to use such modern inputs. However, if such reforms are to be successfully implemented, evidence indicates that they may well have to be implemented along with reforms pertinent to the basic structure of the peasant community.

---

[148] See Syed Abdul Qadir, *op. cit.*, Anant Saxena, *op. cit.*, John C. Williams, *op. cit.*, especially chapter 7.

Chapter 4.

MARKETING

1. *Introduction — The relationship of marketing to development*

Agricultural marketing is the combination of activities by which agricultural raw materials and/or processed products are made ready for consumption and reach the final consumer in a suitable form and quantity at the appropriate time, place and price. Marketing includes buying the product, assembly, transport, sorting, cleaning, grading, storage, packing, promotion, financing, selling and all the other operations involved in bringing goods from producers to final consumers.

This process is a long and complicated one. In many countries, for many agricultural commodities, it involves a large number of interconnected and interacting operations by different persons and organizations. It is difficult to discuss any segment of this process in isolation. In this *Survey*, however, an attempt is made to do this for the small farmer; to examine the problems that exist in connexion with the marketing of the product by the small farmer *per se*. The position of the small farmer will of course be affected by the structure of the marketing system and the actions of all the other operators, but we will endeavour to view the process always from the small farmer's point of view.

It should also be borne in mind in discussing the marketing by the small farmer that the activities normally identified separately as "production" and "marketing" are part of an integrated whole. The small farmer's decisions about what to produce, how to produce, and to whom and how to offer his produce are the outcome of many different social, cultural and economic factors, and the effect of these on the small farmer's total situation must be borne in mind as we artificially extract his marketing activities for analysis.

Marketing is related to the process of development in two important ways. Firstly, an examination of the process of agricultural development indicates that the availability of marketing facilities is one of the most important prerequisites for a breakthrough into cumulative growth. Semi-subsistence agriculture, where production is mainly to feed the farm family, with a small surplus for sale or exchange rarely provides the incentives to increase output and to save and invest which are necessary to promote cumulative development.

While marketing can be seen as providing the incentive to increase production of subsistence crops and to diversify into cash crops, thus raising the level of living of the farm family, it is also a two-way street, with one way as important as the other. On the one hand, it provides a consistent and profitable outlet for any farm surplus, thus promoting increased production. As development proceeds and production becomes increasingly specialized, farmers will increase their purchases of inputs and mass consumption goods from the industrial sector. The farmer's increasing need for cash income for this purpose will induce him to produce more for the market.

On the other hand, the marketing system also provides for the transfer of preferences and pressures through the price system from the consumer to the producer, thus promoting both diversification and specialization in agriculture. The increased integration of the economy that takes place along marketing channels opens the way for the spread of modernization to traditional rural areas and creates and strengthens linkages between rural and urban sectors and between agriculture and industry.

All these functions are provided by an open, efficient and dynamic marketing system, but for the small farmer this is rarely the situation. He is more often faced with hindrances and rigidities over which he has no control. As a result, he is less able to take advantage of the process of modernization and falls further behind the larger commercial farmer. As urbanization proceeds and incomes rise, the demand for perishable agricultural products, such as fruit, vegetables, milk and other livestock products, is likely to increase. On the marketing side, these require special handling and storage facilities and, here again, the large commercial farmer is better able to take advantage of the situation and reap its benefits.

Secondly, in a developing economy, the costs of moving products through the system — often referred to as the marketing margin, or the marketing bill — are important variables. Marketing costs vary from product to product, depending on such factors as the degree of processing and the costs of transport and storage. When only local transport is involved, normal marketing margins for individual staple crops in developing countries may be quite low. For instance, small wheat farmers in Afghanistan often get as much as 75 per cent of the final price of flour. Taking all agricultural commodities and all marketing functions together, however, the total marketing bill, even in developing countries, is likely to be at least as much as the primary producer's price.

Empirical evidence shows that economic development is associated with a continuous increase in the importance of domestic marketing expenditure in relation to farm production cost. In the early stages, this inevitably follows from the shift away from subsistence farming toward production for sale. Later, it is associated with a progressive increase in the services provided by the marketing sector, especially through processing or conditioning, quality improvement, packing, presentation and wider distribution. To some extent, the cost of extra services and processes is offset by improved transport, storage, handling and general efficiency, but, as the average consumer becomes wealthier, he is prepared to spend more on higher qualities and extra convenience. The size of the human stomach is limited, but the appetite for extra services appears to be insatiable.

In spite of its importance in the process of economic development, Governments have, until recently, given little attention to marketing. In the 1960s, an analysis of national plans of 13 developing countries showed the median ratio of planned outlays on marketing to outlays on agriculture as a whole to be around 4 per cent.[1]

In the last few years, however, many Governments have become more aware of the importance of the marketing function and that progress in their agricultural programmes has previously lagged because of ineffective marketing systems.[2] They have also become more aware of the importance of an efficient marketing system in providing agricultural products to the rapidly rising urban populations.

A concern with marketing questions is also important in the preparation of development plans. In many countries, lack of information on market considerations have resulted in inappropriate planning or wasteful development programmes. Marketing considerations must enter the planning process in order to estimate probable demand as a basis for production targets. Economic growth depends not only on the identification of new resources to exploit but also on correct decisions about how to use them and at what pace to put them on the market. Production plans for new crops must take account of consumer tastes and habits. Examples of misjudgements of the market on such grounds are common. "Apparent consumer reluctance to buy refrigerated or frozen meat in the Near East and some southeast Asian cities has negated investments in processing and transport facilities and blocked programmes to expand income from livestock raising. Many officially-sponsored programmes to introduce nutritionally valuable foods based on oilseed protein have foundered on the same rock of consumer resistance."[3]

In summary, the importance of marketing as a key factor in development is being increasingly recognized. Governments' concern with the promotion of an efficient marketing system is growing. In this chapter, an attempt will be made to identify problems that small farmers in particular have in marketing their produce, so that remedies can be suggested for the small farmers' benefit and the general development of the national economy.

2. *The problems of small farmers in marketing their produce*

There is evidence suggesting that attempts to improve the lot of the small farmer by raising productivity or by improving the rural/urban terms of trade may well be frustrated by many economic and social rigidities. A host of rigidities in the marketing system inhibit the filtering down of increased returns to the bottom level and the small farmer is too locked into his situation to generate the necessary reforms from below. Yet the evidence on this matter is by no means unambiguous.

The stereotype of indigenous marketing systems for the small farmer is that it is exploitive, collusive, economically inefficient and operating with high profit margins for the trader. At the bottom is the small farmer, poor, often illiterate and unorganized, whose small volume of business is of poor quality, unstandardized, costly to handle and relatively unimportant to the trader. The general poverty of the small farmers and their chronic indebtedness to money-lenders who are often the traders who buy their produce, weaken the farmers' bargaining power, especially at harvest time. This weakness is aggravated by the farmers' lack of knowledge about prices and alternative marketing procedures. The farmer therefore has little incentive to increase his production or its quality and is quite unable to take the substantial risks involved in innovation. This inherent weakness of the small farmer means that he is an easy target for exploitation — underweighing or underassessment of the produce, charging high interest rates, etc.[4]

---

[1] J. C. Abbott, "Marketing issue in agricultural development planning", in Moyer-Hollander, ed., *Marketing and Markets in Developing Economies* (American Marketing Association, 1968), pp. 87-116.

[2] J. N. Chaturvedi has discussed the reasons for the time-lag that tends to exist between the development of the agricultural marketing sector and the development of agricultural production. In some cases, this lag has created serious blockages where agricultural output has increased rapidly due to technological change. See J. N. Chaturvedi, "Emerging problems of agricultural marketing" in *Seminar on Emerging Problems of Marketing of Agricultural Commodities* (India Society of Agricultural Economics, 1972). In West Pakistan, land planted to the new IR-8 rice rose from 10,000 acres to nearly 1 million acres in one year (1967/68), creating an exportable surplus of rice without the marketing facilities to handle it efficiently. Four consecutive annual increases in rice harvest in the Philippines in the late 1960s created a pressing shortage for drying and warehousing facilities. See M. Rahman, *Development of Agricultural Marketing in Bangladesh* (Bangladesh Academy of Rural Development, 1973), pp. 28-29.

[3] J. C. Abbott, "Marketing, an accelerator of economic growth", *Agricultural Marketing Conference Proceedings*, February 1972, Kathmandu, Ministry of Food and Agriculture, Nepal.

Most of these problems are seen to have complex causes, rooted deep in the social, economic and institutional situation. The marketing system for the small farmers is therefore relatively static and they appear generally unable to develop alternative marketing channels for themselves.

On the other hand, there appears to be considerable controversy in the literature about how generally true the above stereotype really is. Some studies show that small farmers deal with a marketing system that is economically efficient, that traders are not collusive, that they provide essential services to farmers at reasonable cost and that their marketing margins are not excessive.[5]

It must be realized that agricultural marketing, and particularly as it affects small farmers in developing countries, is a more recent discipline than many other branches of agricultural economics, and a great deal more research is needed to clarify the real situation in the marketing channels of Asia. It may be that more and better information and a clearer understanding of the marketing systems will change many preconceived ideas and government policies in this field.

Not long ago, misunderstanding of the production side of agriculture led to inappropriate policies. "It was widely believed that the typical cultivator in a low income country was not very intelligent and operated in a traditional manner which stood in the way of improving technology and increasing the efficiency of production. This view led to an emphasis on changing attitudes and education of cultivators at the expense of programmes for input supply and research for generating applicable technological change."[6] A clearer view of the farmer with respect to production has led to the correction of many previous policies. A similar situation now exists with respect of marketing, except that the factors affecting it are even more complex. In this section of the chapter we shall highlight some of the areas where there is evidence that problems exist for the small farmer and other areas where the nature and extent of his problems still need further exploration.

Before proceeding, it is necessary to make a number of points which limit the scope of our enquiry.

Firstly, while every effort is made to direct analysis to the small farmer, precise identification is difficult and much of the information available about the problems of agricultural marketing does not differentiate between small and large farmers.

Secondly, our discussion of marketing problems of small farmers abstracts from the general national and international economic situation that affects the agricultural sector in any country. Nor is any account taken of changes in domestic or international prices of agricultural products or of government policies affecting the agricultural sector in general that do not deal directly with the marketing problems of small farmers.

Thirdly, small farmers' marketing problems arise in relation to both the sale of farm produce and the purchase of farm inputs. Discussion in this chapter concentrates on the former, although many of the problems discussed here also apply to the marketing of inputs. Problems connected with the supply of credit are discussed mainly in chapter 5 of this *Survey*, although the important relationship between product marketing and credit supply is touched on below. While the marketing of output has been conducted on a regular basis for thousands of years, purchased inputs, such as improved seeds and fertilizers, are relatively new for the small farmers. These inputs are particularly important in connexion with the spread of the new technology for high-yielding varieties, the supply of which to small farmers has already been discussed in chapter 3 above.

Fourthly, most small farmers in the ESCAP region are dependent on the production of subsistence crops, and it is worthwhile to consider briefly the extent and nature of their marketed and marketable surplus of these crops. How does marketed surplus vary with size of farm? What proportion of his output does the small farmer market and how important is his contribution to the total marketed surplus of the economy? Information about the nature of the marketed and marketable surplus of the small farmer is important because it will affect his reaction to changes in the marketing system or programmes to increase agricultural production. In addition, it provides insights into why the small farmer is often unable to take advantage of government programmes designed for his benefit.

---

[4] G. R. Spinks, "Myths about agricultural marketing", *Monthly Bulletin of Agricultural Economics and Statistics*, vol. 19, No. 1, January 1970. S. Selvadurai, *Padi Farming in West Malaysia*, Ministry of Agriculture and Fisheries, Malaysia, Bulletin No. 127, 1972. J. C. Abbott, "The development of marketing institutions", *Agricultural Development and Economic Growth*, ed. H. M. Southworth and B. F. Johnston (Ithaca, N.Y., Cornell University Press, 1968), pp. 368-370.

[5] John W. Mellor, *The Economics of Agricultural Development* (Ithaca, N.Y., Cornell University Press, 1966), pp. 328-345; G. R. Spinks, "Myths about agricultural marketing", *Monthly Bulletin of Agricultural Economics and Statistics*, vol. 19, No. 1, January 1970.

[6] John W. Mellow, "Elements of a food marketing policy for low countries", *The Marketing Challenge*, Foreign Economic Development Report 7 (AID, 1970), p. 12.

Marketed surplus is the part of farm output which is actually sold on the market irrespective of the needs for home consumption and other requirements, such as payment in kind to labour or landlord. Marketable surplus is the residual left with the producer after meeting all his other requirements. The marketable surplus may be more than the marketed surplus if, for example, the producer carries stock over to the next year; more important, the marketed surplus may be more than the marketable surplus if the producer is forced to buy back some produce for consumption late in the season.

Considerable controversy still exists regarding the marketed and marketable surplus of small farmers, but some research in India indicates the existence of distress sales by small farmers. This is demonstrated by a decline in marketed surplus as farm size increases to a certain size and by the extent of the late season buy-back by small farmers.

The first major study by Narain[7] found that marketed surplus as a proportion of output declined to farm size class 10-15 acres, after which it steadily increased. Above this level, there was a true commercial surplus. Below it, there was a distress surplus necessitated by the extent and timing of the cash obligations of the producers. Yet, about 50 per cent of total agricultural surplus was marketed by farms below 10-15 acres. Narain found that small landholders of 0-5 acres contributed at least 20 per cent of the value of output as marketed surplus.

However, a study by Mathur[8] showed that sales of *jawar* (sorghum) by landholdings in the 0-5 acre class were practically nil. A major reason for this difference is that Mathur was concerned with only one crop, *jawar*, while Narain was interested in total agricultural output.

Other studies indicate that, for an individual crop, even when the marketed surplus increases by size of holding, the small farmers are forced to repurchase a significant amount of their original sales, making their marketable surplus very small (see table 18).

Table 18. PRODUCTION AND UTILIZATION OF WHEAT AND GRAM BY SIZE OF HOLDING, LUDHIANA DISTRICT, PUNJAB, 1962-1963

Size of holding (acres)	*Marketable surplus*	*Marketed surplus*	*Purchases in market by farmer*	*Stock carry-over*
	(percentage of total production)			
		Wheat		
Below 5	—4.90	18.24	22.33	—
5 — 10	34.98	35.53	0.55	—
10 — 15	36.53	36.78	0.25	—
15 — 20	43.47	42.36	—	1.11
20 — 25	50.60	48.86	—	1.74
25 — up	50.80	49.73	—	1.07
		Gram		
Below 5	7.33	41.33	34.00	—
5 — 10	24.54	28.85	4.31	—
10 — 15	26.62	28.70	2.08	—
15 — 20	28.10	25.62	—	2.48
20 — 25	34.43	31.42	—	3.01
25 — up	36.82	33.99	—	2.83

Source: H. N. Dvivedi, "A study of the factors governing the flow of marketable surplus of important crops in Ludhiana District" (unpublished), Department of Economics and Sociology, Punjab Agricultural University, Ludhiana, Punjab, quoted in J. R. Moore, Johl and Khusro, *Indian Foodgrain Marketing* (Prentice Hall, 1973), pp. 31-32.

Similar results were found for small farmers growing *bajra* (millet) in Gujarat, India.[9] The relationship of marketable surplus, both per farm and *per capita*, with the size of holding was positive. In the villages studied, all farmers with farms smaller than 2.5 acres sold more *bajra* than their marketable surplus — mainly because of urgent cash needs.

Considerably more research needs to be done on this subject, but, in some countries, it appears that a significant portion of the small farmers' output of subsistence crops passes through the marketing system. This is the case even though the proportion of output that is sold by the small farmer to the rest of the economy may be relatively small because of his need to buy back later in the season.

There are two consequences of this situation which should be borne in mind. First, any improvement in the marketing system for the small farmer will increase his welfare since he has a significant marketed surplus. Second, other rural programmes that reduce the need for small farmers' distress sales may increase their welfare and could reduce the marketed surplus that passes through the marketing system.

---

[7] D. Narain, *Distribution of the Marketed Surplus of Agricultural Produce by Size-Level of Holdings in India, 1950-1951*, Bombay, 1962.

[8] P. N. Mathur, "Time pattern and quanta of purchase and sale of *jawar* by the peasants of Vidarbha (Bombay State)", *Artha Vijnana*, No. 1, 1959, pp. 61-69.

[9] *Green Revolution and Problems of Marketing*, Research Study No. 25, Agro-Economic Research Centre, Sardar Patel University, Vallabh, Vidyanagar, 1972, pp. 76-92.

The marketing of small farmers' produce does not flow smoothly because of four disadvantages under which the small farmer labours. Firstly, he is unable to take advantage of economies of scale; secondly, he is often unable to capture the externalities from government investment in infrastructure; thirdly, he may face imperfections in the market; and fourthly, he suffers from the lack of government regulation to enforce fair dealings in the market.

Economies of scale are important in marketing and they become increasingly important as development proceeds and agriculture becomes more commercialized. Because the amount of inputs that a small farmer purchases is small, the price that he pays is likely to be higher than the price paid for larger amounts. Larger-sized lots mean lower fixed costs per unit for the seller. The same principle holds for his selling activities. The same management effort is required to buy ten pounds of grain as one hundred, so a buyer will naturally favour large sellers, forcing small sellers to lower their selling price. The relatively small size of the small farmer's offering means that he cannot take advantage of bulk storage on an individual basis. Neither can he reap the economies of bulk transportation. It is also likely that his output will be graded at a low-quality level because it is too small to make it worthwhile to break it up into lots of different quality.

Transportation facilities and infrastructure connected with market centres are usually provided by public authorities. Any taxes or charges for the use of such facilities are usually less than their cost, thus providing external economies which can be captured by the users of such services. The decision to provide infrastructure, its location and quality, is often a political decision. Invariably, small farmers do not have the political power to influence such decisions, and outlying areas of the country with predominantly small farms are therefore often at a disadvantage compared with areas with larger and more commercialized farms.

The small farmer may face imperfections in the market. To the extent that he does, his lack of bargaining power vis-à-vis the trader, money-lender or landlord increases his weaknesses. Finally, because of poor government regulation of weights and measures and lack of laws to control trading practices or their poor enforcement, the small farmer may again be at a disadvantage compared with the large farmer.

At the beginning of the introduction to this chapter, the multiplicity of activities that make up the marketing system were mentioned. In this section, was have chosen several of these for detailed examination in connexion with the small farmer. We have chosen those factors which we consider most important in their effect on the small farmer's returns.

The first items discussed will be transport, storage and standardization. These are technical questions which can be abstracted from the institutional factors of the marketing system. The provision of such technical facilities can go a long way towards ameliorating the position of the small farmer.

Next is the question of the provision of market information systems. One main reason for the disadvantageous position of small farmers is undoubtedly their lack of information — about alternative marketing channels, government services available, prices, transport arrangements and availability of inputs.

The third area of interest is the small farmer's problems with the institutional structure within which he works. In short, how efficient and how just is the market system he faces? The answers to these questions are difficult in that the situation varies from crop to crop and from area to area, and, in many cases, research has not yet provided the answers. How competitive is the primary market with which small farmers deal? How reasonable are the marketing margins? How effective are some of the government programmes which have been implemented in Asia to "rescue" the small farmer from the private trader? Our purpose here will be to highlight the problems faced by the small farmer, review some of the information available on these questions and point the way towards further work that is necessary in this field.

(a) *Transport, storage and standardization*

(i) *Transport*

The first step in improving agricultural marketing is to provide adequate transport facilities. It is usually the poorest farmers who are serviced by the poorest roads. Because of the lack of farm-to-market roads or the high freight charges due to inadequate roads, incentive to grow for the market is reduced and many farmers are forced to concentrate on certain crops although their land is suitable and a market exists for more profitable crops. The growing of perishable crops is particularly hampered by lack of access roads or by roads that become impassable in certain seasons.

As mentioned earlier, transportation facilities are usually provided by Governments, thus creating externalities that can be captured by those to whom the facilities are available. In many western developed countries, the provision of low-cost transportation has been regarded as the most important element in stimulating economic growth. There is a body of opinion that would give the provision of transportation the same primacy in developing countries. Whether this is the case or not, it is true that other efforts to increase the productivity and income of small farmers will be frustrated if adequate transport facilities to bring the produce to market and to bring inputs to the village do not exist. Rudimentary transport facilities must exist if the marketable surplus of small farmers' subsistence crops is to increase. If farmers are to take the risk of shifting to the production of more profitable cash crops, assured all-weather transportation must be generally available from farm to market. In addition, the market centre must be large enough to enable farmers to purchase those subsistence crops that they no longer produce.

For example, "the farmers of a mountain province of the Philippines for a long time would not grow cash crops such as cabbages and other vegetables for which their cold climate was suitable, despite the very high prices of such products in the lowlands. Bad roads, which became impassible in the rainy season, would have made marketing extremely hazardous and might also cut them off from outside food supplies. The construction of all-weather roads and the provision of marketing facilities were the deciding factors in persuading these farmers to give up growing subsistence crops and go into specialized vegetable production."[10]

Since the Second World War, most of the road-building activity in the ESCAP region has been to develop main national highway systems. In many cases, this has opened up large areas of the hinterland to rapid transport and urban markets. However, the development of feeder roads has often been neglected. Moreover, in some countries, the concentration of investment in main roads has resulted in their being seriously underutilized owing to the lack of development of feeder roads. Transportation costs are higher in outlying rural areas because of higher vehicle operating costs. This is due to poor roads, their poor maintenance, peak and slack periods depending on the type of crops, and higher prices for fuel and vehicle parts in the inland areas. In some countries, high import duties on fuel, trucks, tyres and other parts impose an additional burden on the rural sector, and this burden bears most heavily on the small farmer who is more frequently located in backward areas.

Many countries of the region are very poorly serviced with farm-to-market roads. In fact, there are a considerable number of settlements in the developing countries which are not accessible by road at all, even by cart track. A survey of transport facilities in the state of Maharashtra, one of the more developed Indian states, has revealed that half the 34,361 villages had no approach roads to link them with main roads, while 30 per cent had no access roads whatever. In Uttar Pradesh, one of the poorest Indian states, 38 per cent of the villages have no road connexions with market centres.[11]

Poor condition of farm-to-market roads and lack of transportation facilities also hamper marketing of small quantities by individual farmers in Bangladesh and the Philippines.[12]

Table 19 gives some indication of the lack of farm-to-market roads in Asia compared with developed countries.

Table 19. FARM-TO-MARKET ROADS PER SQUARE MILE OF CULTIVATED LAND

Country	*Number of miles*
Republic of Korea	2.7
Bangladesh	2.5
Philippines	1.1
India	0.8
Pakistan	0.7
Iran	0.5
USA, France, Japan	3.3 (approx.)

Source: E. Owens and R. Shaw, *Development Reconsidered* (Lexington Books, 1972), table 3-3, p. 43.

Another way of indicating the inadequacy of the feeder road system is to compare the ratio between rural and main trunk highways in a country. A developed country has a ratio of about 10:1, whereas on the whole this ratio is only 1:1 in a number of countries of the ESCAP region.[13]

Means of transportation used by small farmers remain primitive. In a study in the Republic of Korea on the differences between subsistence-oriented farms[14] and commercial-oriented farms, it was found that most sales of subsistence crops were made on the farm and in nearby district markets. Of the total number of movements to country markets, 56 per cent were by bicycle, by back pack (*jige*) or hand carried and 19.3 per cent were by cart. According to a study by the Institute of Agricultural Economics in the Republic of Korea on pigs transported from the village to the local market, 96 per cent were transported by bicycle, 3.4 per cent by cart and 0.2 per cent by truck. Seventy-five per cent of chickens were transported by bicycle and 17.4 per cent by bus.[15]

---

[10] F. A. Shah, "Importance and scope of agricultural marketing", *Manual,* National Training Centre on Agricultural Marketing, Ministry of Agriculture and Co-operatives, Kuala Lumpur, 1965, p. 5.

[11] E. A. J. Johnson, *The Organization of Space in Developing Countries* (Cambridge, Mass., Harvard University Press, 1970), p. 103. See, also, J. R. Moore, S. S. Johl and A. M. Khusro, *Indian Foodgrain Marketing* (Prentice-Hall, 1973), chap. 6.

[12] K. M. Rahman, "The experience of marketing with regard to small farmers in Bangladesh with particular reference to Comilla Rural Development Programme" (unpublished), ESCAP, 1975, p. 8.

N. R. Deomanpo and E. B. Torres, "Marketing rice and corn through private channels in the Philippines: Focus on small farmers" (unpublished), ESCAP, 1975, p. 8.

[13] Replies to an ESCAP questionnaire from Afghanistan, Iran, Pakistan, the Philippines, the Republic of Korea, Sri Lanka and Thailand. See ESCAP Transport and Communications Committee, "A preliminary report on rural road transport" (E/CN.11/TRANS/Sub. 2/L.57), April 1972, p. 6.

In India, as would be expected, trucks and rail dominate the movement of foodgrains from the assembly markets to the consuming centres, but bullock carts predominate in farm to primary market transport.[16] Research done in the late 1960s in the Punjab found, perhaps contrary to popular belief, that the hire of animals or animal-drawn vehicles for transport was more expensive per unit carried than that of motorized transport. However, the inaccessibility of many farm villages by motor vehicles means that animal and human power must be used. This is further indication of the disadvantage suffered by the poorest section of the farming community. Yet, in many villages that are accessible by road, bullock carts are still used because they are a fixed cost to many farmers, because they are easily available in most villages and because the volume of produce being transported by the small farmer is small.

The primitive methods of transport and poor roads not only increase the cost of transporting the produce of the small farmer, either by himself or by the trader, but they also cause great deterioration and loss during transportation.

It is clear that the need for improved feeder roads in the region is very great, but it is very difficult to estimate the length of feeder roads that is actually needed. This depends on a number of factors, such as density of population, topography, type of crops and system of farming, and requires cost/benefit analyses of each particular situation. Ideally, farmers should be able to travel to the nearest market town and back in one day. With the primitive form of transport available in the region, the distance should therefore not be longer than 5 miles. In the very worst situation is the small farmer in a village far from a primary market and not served by any roads. In the Kanpur region of India, 37 per cent of the villages, over 4,000 communities, had no road access, and 47.2 per cent of these were over 5 miles distant from any market. Almost a fifth were over 10 miles distant.[17] A similar picture could be given for some areas of many other countries, particularly the poorest and those with difficult topography, such as Burma, Laos, Nepal and Indonesia outside Java.

The Asian Development Bank's Southeast Asian Regional Transport Survey in 1972, in discussing the need for feeder roads to service agricultural development, concluded that the cost of even upgrading existing rural roads in southeast Asia to all-weather standards made such a project out of the question and that it was "clear that the entire countryside cannot be linked to the market economy".[18] It was suggested that investment should be concentrated where the greatest output of agricultural products can be expected, where intensive use of fertilizer and other scientific inputs can be promoted. Such a policy, however, would be likely to benefit the relatively better-off areas as so many production-oriented policies have in the past.

It is much better to have a close network of unsurfaced cart-tracks that are passable most of the year than a sparse network of year-round high-standard roads. However, even a network of cart-tracks, built mainly by local labour, is not a simple undertaking. Their planning and building need organizational and administrative inputs and some technical advice for both road layout and bridge and culvert design, all of which are in short supply. Maintenance of earth tracks is vitally important and difficult to get done on a voluntary basis unless there is a strong local association of farmers convinced of the need to do the necessary work co-operatively.

However, small farmers not only need road access to their villages, they need primary market centres within reasonable distances. These centres must be large enough to serve as the source of modernization for the farmers, the source of their inputs, the seat of their organizations and government assistance as well as the outlet for their produce. We have mentioned 5 miles as the desirable maximum distance between village and market with animal-drawn vehicles. A radial limit of 5 to 6 miles would mean that an ideal market centre would serve 70 to 75 square miles. It has been estimated that, on this basis, India would need from 12,000 to 14,000 urban centres, but it has only 3,000.[19]

---

[14] A subsistence-oriented farm was defined as one where family consumption of farm produce was greater than that marketed off the farm. Sung Hoon Kim, "Effects of farm-level marketing and credit services on commercialization of subsistence agriculture in Korea", *Proceedings of the Interregional Workshop on Agricultural Marketing*, ADC, 1969.

[15] Joong Il Suh, "Present status and problems of agricultural marketing, in Korea", *Proceedings of the Interregional Workshop on Agricultural Marketing*, 1969, ADC, p. 14.

[16] Moore, Johl, Khusro, *op. cit.*, p. 102.

[17] "Road development", report prepared by the Uttar Pradesh Regional Transport Study Group (mimeo.): quoted in E. A. J. Johnson, *op. cit.*, p. 195.

[18] *Southeast Asian Regional Transport Survey*, prepared by Arthur D. Little and Associated Consultants for the Asian Development Bank, 1972, book 1, p. 89.

In developing countries, the spatial pattern that has evolved is for a cluster of villages to be serviced by a primitive market in a larger village. In most cases, it is within a day's travel on primitive roads or tracks with primitive (animal or human) transport facilities.[20] As incomes rise and transport improves, the rural community can support larger, more developed marketing-cum-service centres where the various activities can capture the externalities of a market town. Most developing countries cannot at present support such developed market centres within a day's travel of the majority of villages.

The problem then is a vicious circle and points to the importance of spatial planning in developing countries. Increased public expenditure for the network of farm-to-market roads is needed, but this must be tied to the development of rural service centres through which small farmers can be brought into contact with modern facilities and services. It should be borne in mind that investment in rural infrastructure can drastically change the pattern of agricultural production. The costs and benefits of investment in such infrastructure must therefore be carefully analysed and integrated with other programmes for rural development.[21]

(ii) *Storage*

The second major item of infrastructure needed by small farmers is storage. Lack of on-farm storage facilities is often cited as one reason for the low prices received by small farmers because they must sell immediately after harvest when prices are lowest. However, other pressures on small farmers also force them to sell at harvest time. A survey of small farmers in the Republic of Korea indicates the typical position of small farmers in the region. It was found that they were under pressure to sell immediately after harvesting because (a) they lacked adequate credit to enable them to build storage facilities; (b) there was need for cash for household expenditures after harvest; (c) crop sales were tied to pre-harvest loans; and (d) cash was needed to meet other institutional or government loan payments.[22]

Storage facilities used by small farmers are usually on the farm and the methods are adapted to subsistence farming. They are used for short periods, at the longest for a crop season during which time the farmer stores his product for his own consumption. A study of farmers in the Punjab shows that only about 6 per cent of farmers had separate storage arrangements. The rest stored in their living rooms or made improvised arrangements.

Table 20. TYPE OF STORAGE AT VILLAGE LEVEL IN THE PUNJAB

Type of structure	*Percentage of the cultivators using the structure*
Separate godowns	6
Bukharies	60
Living room (stored loose)	28
Living room (stored bag)	2
Others	4

Source: K. S. Gill and S. S. Johl, "Marketing of grain in the Punjab", *P.A.U. Research Bulletin*, 1971.

In many countries, wholesale warehousing facilities are used only by medium-scale and large-scale farmers. This was found to be the case with grain growers in the Republic of Korea, where a government storage programme for small farmers was largely unsuccessful.[23] A kind of warehouse receipt system had been initiated to help small farmers, but complex and cumbersome procedures, rigid inspection policies and inadequate transport made it unattractive to them.

Even for the small farmers who are able to store some part of their harvest for future sale, their storage methods are usually so poor that they suffer considerable loss due to destruction and decreased quality. As far as grain storage is concerned, insects, rodents and high moisture content in the grain at the time of storage are the main problems.

There is relatively little published information on storage losses from different causes at the village level. One source indicates that, in the tropics, total storage losses in the rural areas can reach 25 per cent by volume plus quality decline. In India, two village-level studies, one in Uttar Pradesh and one in the Punjab, of insect damage only of stored wheat showed that the loss varied considerably with the type of storage facilities used. Losses varied from 2 to 9.5 per cent for a seven-month period.[24] In Bangladesh, where most grain storage facilities in rural households are woven-split bamboo baskets, jars and pitchers or mud-walled, bamboo or wood storage bins, damage varies from 2 to 4 per cent.[25] The problem of field insect infestation has often been underestimated.[26] In Thailand and the Republic of Korea, 50 per cent of grain losses are reportedly due to rodents. Cultivation of new high-yielding varieties, especially paddy, have posed new problems with sprouting because of the limited dormancy of some varieties.[27] Perishable commodities often sustain very heavy losses in handling by small farmers in Asia. Vegetables, for example, are often packed in heavy sacks or piled in bulk, causing them to heat in the centre and rot. Or deep baskets of a conical shape are used, resulting in damage by weight of the produce at the bottom of the basket.

---

[19] E. Owens and R. Shaw, *Development Reconsidered* (Lexington Books, 1972), p. 41.

[20] In some countries with large areas with scattered populations, such as Papua New Guinea, the development of mobile markets is being encouraged.

[21] See, for example, Research Division/USOM, "A cost-benefit study of roads in north and northest Thailand" (mimeo.), 1966.

[22] Sung Hoon Kim, *op. cit.* See also L. B. Darrah and F. A. Tiongson, *Agricultural Marketing in the Philippines* (University of the Philippines, 1969).

[23] Sung Hoon Kim, *op. cit.*, p. 156.

[24] Moore, Johl and Khusro, *op. cit.*, p. 133.

[25] K. M. Rahman, *op. cit.*, p. 10.

For many subsistence crops in Asia, prices fluctuate considerably during the season. Examples for paddy in Bangladesh and *palay* and corn in the Philippines are given in table 21. Adequate storage at the farm level may enable the small farmer to take some advantage from these price changes.

Table 21. SEASONAL VARIATION IN FARM PRICES FOR MAJOR CROPS

Month	*Bangladesh[a] wholesale price of paddy (aman) (taka per maund)* 1972	1974	*Month*	*Philippines[b] (average annual price 1959-1967=100)* Palay	Corn
January	24.68	55.45	May	102	103
February	26.88	61.84	June	105	104
March	32.34	74.48	July	105	103
April	36.67	87.92	August	106	101
May	39.96	89.89	September	105	99
June	40.22	95.55	October	100	99
July	40.25	93.50	November	98	98
August	46.60	111.07	December	97	100
September	49.98	125.48	January	91	95
October	50.93	158.14	February	96	100
November	41.40	119.63	March	97	97
December	37.48	110.64	April	100	101

Sources: [a] Department of Agricultural Marketing, *Wholesale Prices of Farm Products in Bangladesh, 1970-1975,* Government of Bangladesh, Dacca, 1975, quoted in Shamsul Islam, "Agricultural marketing in Bangladesh" (unpublished), prepared for the United Nations Asian Development Institute, September 1975, p. 39.

[b] L. B. Darrah and F. A. Tiongson, *op. cit.*, p. 126.

In recent years, a number of Governments have provided increased grain storage capacity, but this has seldom affected the lowest-level producer — the small farmer. In India, for example, most public warehouses have been built at the distribution end of the marketing channel, in the cities, not in the countryside. In the mid-1960s, only a little more than 10 per cent of the total government owned and rented warehouses were used by farmers, through their co-operatives, whereas 80 per cent were leased by traders. "Farmers are not organized to gather together their own production in large quantities and carry it into the city to be stored until they can reap for themselves the benefit of higher prices. These functions are still performed by the traditional middlemen. Hence, they lease the very high proportion of government storage capacity."[28]

Table 22. SHARE OF VARIOUS AGENCIES IN WAREHOUSE STOCKS IN PUNJAB, 1967 TO 1970

Agency	*Percentage share in warehouse stocks with the Punjab Warehousing Corporation* 1967	1968	1969	1970
Co-operatives	6.0	12.5	1.5	0.3
Producers	1.0	2.5	0.4	0.1
Traders	91.5	78.0	97.7	35.1
Public agencies	1.5	7.0	0.4	64.5

Source: Compiled from Manmohan Singh and K. S. Gill, *Farmers and the warehouses progressive farming (sic)*, September 1972. Originally obtained from Annual Reports of the Punjab State Warehousing Corporation, Chandigarh.

Two problems seem to exist with regard to storage. The first is the upgrading of storage facilities at the farm level which, if nothing else, would reduce losses of farmers' grain being kept for consumption. This would usually require investment in more substantial structures and the dissemination of technical information about improved storage methods and better management of existing storage facilities. New, cheaper and more effective methods of on-farm storage have been developed in several countries, notably India, Nepal and Thailand, but the problem is one of making the materials and technology available to the small farmer.

The second problem is concerned with the question of whether the farmer can be provided with storage facilities for his marketed surplus so as to reap the profits which at present accrue to the trader for undertaking this function.[29] To do this, he

---

[26] M. R. Gend, "Successful methods for reducing losses during storage in tropical environments", K. L. Turk, ed., *Some Issues Emerging from Recent Breakthroughs in Food Production* (Cornell University Press, 1971), p. 323.

[27] APO, *Symposium on Foodgrain Marketing in Asia,* 1971, p. 83.

[28] Owens and Shaw, *op. cit.*, p. 44.

[29] It is not contended here that *monopoly* profits are reaped by these traders. What little evidence there is, appears to support the opposite view. Research by Mears and Anden in the Philippines suggests that seasonal variations in rice prices do not result in large profits for traders. (Leon A. Mears and Teresa L. Anden, "Who benefits from the post-harvest rice price rise?", Institute of Economic Development and Research, School of Economics, University of the Philippines, Discussion Paper No. 71-18, September 1971, p. 19). Research by Uma Lele into the efficiency of *jowar* marketing in India indicates that the seasonal rise in prices was sufficient to cover storage costs and risks; no monopoly profits were discovered. (Uma Lele in J. Mellor, *et al., Developing Rural India*). A study by K. S. Gill and S. S. Johl ("Marketing of gram in Punjab", Department of Economics and Sociology, Punjab Agricultural University, Ludhiana) shows the following profit rate for 8 months' storage of gram by traders for the years 1963/64 to 1966/67:

	1963/64	*1964/65*	*1965/66*	*1966/67*
		(per cent)		
Average purchase price	79	85	91	65
Marketing and storage costs	13	14	14	6
Profit (+) or loss (−)	(+)8	(+)1	(−)5	(+)29
Sale price	100	100	100	100

must have sufficient savings or be able to obtain credit to live through the period until the crop is sold. He must be able to meet any cash obligations that fall due at harvest time. And he must have storage facilities available. The marketed surplus of the individual small farmer is so small that, in order to compete with the trader in storing for a higher price, he would need to store in bulk with other farmers. Farmers' marketing and production co-operatives have attempted to meet these needs in the past. Other sections of this *Survey* discuss the reasons for the general lack of success of traditional farmers' co-operatives and associations and suggest the need for new attempts to build farmers' co-operative institutions.

(iii) *Standardization*

There can be no question of the importance of standard weights, measures and grades in marketing. If these are not standardized and the standards adhered to, there can be no certainty about what has been bought or sold, or about the price. Yet this is exactly the position at the local level in many countries. Failure to deal in standard quantities and grades results in a number of marketing problems and malpractices and can be a serious disincentive to production.

The main problem is to secure general use of standard weights and measures. There is usually, however, a lack of reliable weighing equipment in rural areas. If the Government is to enforce its use, it must ensure that the equipment is available at prices that local traders can afford. In many countries, a bewildering variety of volume measures are used that vary in size in different localities and in weight depending on how they are filled. An example is the marketing of corn in the Philippines described by Darrah and Tiongson. "While milled corn is typically sold by the cavan and green corn by ears, husked corn is sold by the can (kerosene) and cavan. Unhusked corn is sold by the row, basket, cartload, and per 100 ears and shelled corn is sold by cavan, can, and ganta. The sales unit and even the form in which corn is sold varies substantially from area to area. The only general rule that can be given is that if a large volume of corn is available for sale, large sales units are used. If only small quantities are available for sale, smaller sales units are typical."[30] A similar situation was found in a survey of small farmers in the Republic of Korea, where the use of different sizes and kinds of containers in the selling of grain at the farm level led to a great variety of price quotations and encouraged cheating in scaling and much wasteful handling.[31]

The establishment of standardized grades is important at the primary market level because it is here that the farmer can be influenced to adopt procedures that will result in higher-quality output and higher returns. Price incentives can induce the farmer to plant better varieties and take more care in harvesting and handling if he is provided with the appropriate technology. But where transactions are in small lots, at many different places and between many producers and traders, it is difficult to implement quality standards. Difference in quality will be reflected in some difference in price at the producer level, but often by less than at subsequent market levels. Assessment is often by visual examination only, and this leaves the way open for malpractice to the detriment of the small farmer with little negotiating power.

Equipment that can make a satisfactory determination of moisture content, foreign matter and milling yield for grains, for example, is now available, but it may not be feasible to require its use by small traders. On the other hand, with the purchase of small lots, quality must be determined and payment made on the spot. Small farmers cannot be expected to wait until a sample of their produce has been sent away for grading. In some countries, government procurement officers carry testing equipment to the villages and will use it if the farmer disputes their visual grading of the product. Its use, however, is time-consuming and not encouraged.

Systematic grading of fruit and vegetables for the domestic market is rare in the region. Efforts to enforce standard grades for the domestic market are probably not worthwhile at present, particularly in view of the extent of the deterioration that results from poor handling and transport. Training of individual small-scale producers is out of the question, and grading could only be feasible if applied at collection points through farmers' marketing co-operatives or associations.

It is not realistic to expect grading to take place at the farm under the present system. In 1962, the Directorate of Marketing and Inspection in India introduced a system of grading at the producer level that is being operated by the State Marketing Departments, co-operatives and other agencies in the rural areas. When the produce is brought to these centres, it is graded by trained graders and then sold by auction. Although the system is still only at an experimental stage, covering a few products at about 500 market centres, the participating producers have benefited in a number of cases. Grading facilitates pooling of produce, and this can increase marketing efficiency and price. Grading and pooling of tobacco at Ongole, for example, has resulted in price increases for the producers of from 10 to 20 per cent compared with the sale of ungraded product direct to the processing factories. In Sholapur market, where groundnuts are compulsorily graded and pooled before sale, it is now possible for a cultivator to dispose of his produce and be paid for it in one day, compared with the four or five days it used to take in the peak season, waiting for the auction of his individual lot.[32]

---

[30] L. B. Darrah and F. A. Tiongson, *op. cit.*, p. 174.

[31] Sung Hoon Kim, *op. cit.*, p. 157.

The possibility of introducing grading at the primary-market level on a wider scale raises a number of problems. These include the cost of the graders, the provision of their training, the persuasion of buyers to purchase on the basis of grades, the formation of national grade standards and the need to sell small farm produce through collection points and organizations where grading can take place.

More success has been possible in Japan where growers usually husk paddy before sale and inspection is compulsory before farmers can sell their rice. Rice is brought to some 40,000 designated inspection places and, by 1962, some 20,000 inspectors were employed by the Japanese Food Agency to inspect some 6.25 million tons of husked rice.[33]

Even with standardized weights, measures and quality, small farmers can be disadvantaged by numerous other unfair sales practices. Buyers can make deductions from the agreed prices on frivolous pretexts. Large samples can be taken without payment. Bidding can be conducted secretly. Traders in Bangladesh, for example, levy a number of special charges and deductions about which the small farmers can do little. These include *dhalta,*[34] *kayali,*[35] *kabari,*[36] *brittie elahi*[37] and *iswar brittie.*[38,39]

For these reasons, government action has been taken in some countries to regulate market practices, particularly in India. While thousands of village markets remain unorganized, two out of every three "assembling markets" or primary wholesale markets are regulated.[40] It has been reported that, in the regulated markets, market charges declined by 30 to 50 per cent.[41] However, although it is estimated that the total volume of commodities channelled through all the regulated markets in various States is increasing, it does not yet exceed 30 per cent of the total marketable surplus of these commodities.[42] Legislation allows governments to (a) declare the area of the regulated market and notify the commodities to be regulated, (b) constitute a market committee on which growers' representatives from the majority, (c) license market functionaries, (d) fix market charges, trade allowances, methods of sale, record keeping and weighing, and (e) levy market fees. Another important achievement has been the licensing of weighmen and the mandatory use of standard weights and measures.

In regard to the question of the use of standardized weights and measures, the application of standardized grades and the elimination of unfair sales practices, there appears no alternative to the Government setting the standards and undertaking their regulation. To achieve this, however, considerable government expenditure is involved.

(b) *Marketing information*

A vital ingredient needed by small farmers to increase their marketing power is information. Certainly one reason for their disadvantageous position in Asia is their limited knowledge of agricultural prices and of alternative marketing channels where available. Public systems try to supply this information to producers and traders in an attempt to equalize their bargaining positions. It is hoped that, in this way, price uncertainty will be reduced, exploitation of greater access to market information will be minimized and price differentials between seasons and between areas will become closer to the actual costs of storage and transport.

In many countries of the region, a highly developed information system exists at the wholesale level, but this has very little impact on farm-level decisions and as a means of integrating the various stages in the marketing channel. Of course, the usefulness of improved information to farmers depends on a number of other conditions. Freedom of choice should not be restricted by other impediments. There must be a choice of outlet available. Transportation must provide access to the alternatives. Credit arrangements and traditional market ties must not make it impossible for farmers to change their outlet where information indicates this to be advantageous. This means of course that the information must be accurate, timely, understandable and appropriate to the conditions in primary markets.

---

[32] V. P. Anantanarayanan, "Reduction of marketing costs and increasing marketing efficiency with special reference to grading at producers' level", *Seminar on Emerging Problems of Marketing of Agricultural Commodities*, Indian Society of Agricultural Economics, Bombay, 1972, p. 113.

[33] *Rice Marketing*, FAO Marketing Guide No. 6, 1972, p. 90.

[34] An allowance in kind deducted in order to compensate the buyer for loss in weight resulting from sorting, bailing and transporting jute.

[35] A cash allowance levied by buyers in certain markets to cover the weighing expenses.

[36] A deduction in kind made by buyers for the benefit of their staff.

[37] A cash market allowance deducted by jute buyers at secondary markets and said to be intended for charity.

[38] Same as above but for religious and charitable institutions.

[39] M. Rahman, *op. cit.*, p. 72.

[40] As of 26 June 1972 there were 4,130 "assembling markets" in India, of which 2,754 were regulated markets. See Government of India, Ministry of Agriculture, *Indian Agriculture in Brief*, 1973, p. 129.

[41] F. A. Shah, *Government Advisory and Development Services for Food and Agricultural Marketing, Asia and the Far East* (FAO, 1963), p. 9.

[42] Government of India, Department of Agriculture, Directorate of Marketing and Inspection, *Working of Regulated Markets in India*, Vol. II, p. 22.

Some studies have been made of the source of price information received by small farmers that indicate to what extent they are able to compare prices in alternative markets and sell in the one that nets the better price. In the Republic of Korea, a survey of representative villages indicated that 21.5 per cent of small farmers marketed their products without having any prior information regarding price or the market situation. Most farmers had some information, but they regarded it as insufficient. It was either outdated, too general or reflected the situation only in the big cities. Thirty-two per cent of farmers received information from relatives and friends and 21 per cent received information from local merchants or buyers, but usually only at the time of sale.[43]

In India, a Haryana study of a sample of wheat farmers showed that 43 per cent of them determined prevailing prices by personal market visits, 31 per cent relied on hearsay from neighbours who had visited the market, 8 per cent obtained their information from newspapers, 7 per cent by letters from the market committee or *arhtia,* 7 per cent from community radios and 4 per cent from their own radios. Fourteen per cent of the same farmers had no price information before going to the market to sell their produce, nearly half (46 per cent) were aware of prices in two markets and 21 per cent were aware of prices in three or more markets.[44]

In a study of small farmers in the Punjab, it was found that the main source of price information was other villagers returning from market. Less than a third of the farmers gave the radio as a source.[45]

In the Philippines, despite the price information available from newspapers, radio reports and the government agencies responsible for stabilizing prices, most small farmers of *palay* and corn obtain their price information from the buyers themselves.[46]

In Thailand, in a 1972 study of small farmers in the northern Chiengmai Valley growing rice, peanuts and soybeans, over three quarters of the farmers said they had some information about prices before actually dealing with buyers. Most had received it from merchants or other farmers. A few said they had received it from the radio. But the remaining farmers (20-24 per cent) claimed to have insufficient information before talking to the merchant to whom they sold.[47]

In countries where public agencies operate agricultural procurement programmes or price support programmes, the farmers' price and conditions of sale to the Government are expected to be advertised, reasonable and consistent. Prices under these schemes, however, often become in fact minimum prices and are irrelevant to the farmer's needs for information to enable him to maximize his returns through private channels, except as a fall-back position.

In Bangladesh, "it has been found that virtually the only source of information available to farmers is local dealers of the commodities concerned. Generally the farmers are ignorant of the prevailing prices and their trends in the important distant markets, demand and supply at home and abroad, crop forecasts etc. Farmers make very little use of postal systems, telegraph, telephone, radio and newspapers. Due to the high degree of illiteracy in the villages newspapers (are not widely read). The Government broadcasts daily market prices prevailing in the capital city through its radio station. But the facilities are far below the requirement and hardly reach the small farmer".[48]

A factor connected to farmers' lack of market information is the site of their sales. Farmers with the smallest holdings usually sell proportionately more of their marketed surplus in the village and proportionately more within the village to local shopkeepers and money-lenders. This can be seen for the Punjab, India, from the following two tables (tables 23 and 24).

Another example is available from Thailand, where 85-95 per cent of farmers in the northern Chiengmai Valley sold to buyers at the farmer's house.[49]

---

[43] Sung Hoon Kim, *op. cit.*, p. 153.

[44] S. C. Tewari and M. V. George, "Market structure and producer's preference of particular market", *Agricultural Marketing,* January 1969, pp. 13 and 14.

[45] S. C. Sharma and K. S. Gill, "Awareness of marketing provisions and practices among the farmers in the Punjab", P.A.U. *Journal of Research,* vol. VII, No. 3, 1970.

[46] L. B. Darrah and F. A. Tiongson, *op. cit.*, and N. R. Deomanpo and E. B. Torres, "Marketing rice and corn through private channels in the Philippines: Focus on small farmers" (unpublished), ESCAP, 1975, p. 14.

[47] A. R. Thodey and Paiboon Suthasupa, "Farm level crop marketing in Chiengmai", *Agricultural Marketing Problems in Thailand,* National Seminar Report No. 2, A.D.C., 1972, p. 16.

[48] K. M. Rahman, *op. cit.*, p. 11.

[49] A. R. Thodey and Paiboon Suthasupa, *loc. cit.*, p. 15.

Table 23. PERCENTAGES OF MARKETED SURPLUS SOLD IIN MARKETS AND VILLAGES IN THE PUNJAB

Holding size group (acres)	*Wheat*		*Gram*		*American cotton*		*Desi cotton*	
	Market	*Village*	*Market*	*Village*	*Market*	*Village*	*Market*	*Village*
0 — 5	32	68	—	100	85	15	89	11
5 — 10	89	11	75	25	88	12	91	9
Average all farmers . .	95	5	92	8	94	6	97	3

Source: K. S. Gill, "Disposal of marketable surplus by the farmers of Punjab", P.A.U. *Journal of Research,* vol. VI, No. 2 (suppl.), June 1969.

Table 24. PERCENTAGE OF QUANTITIES SOLD IN THE VILLAGE TO DIFFERENT TYPES OF BUYERS *(per holding)*

Size group (acres)	*Local shopkeeper*	*Itinerant merchant*	*Money-lender*	*Sold for cash*		*Seed*	*Misc*
				Wholesale	*Retail*		
			Wheat				
0 — 5	32	...	68	...	...	...	...
5 — 10	47	...	28	8	17	...	...
Average all farmers . . .	24	...	11	30	35	...	...
			Gram				
0 — 5	35	...	30	35	...	...	...
5 — 10	45	...	8	47	...	...	...
Average all farmers . . .	12	...	5	34	30	19	...
			American cotton				
0 — 5	56	...	44	...	...	...	...
5 — 10	16	81	3	...	...	...	...
Average all farmers . . .	29	68	3	...	...	...	...
			Desi cotton				
0 — 5	100	...	...	...	...	...	...
5 — 10	86	...	7	...	...	...	7
Average all farmers . . .	43	...	14	...	...	7	36

Source: As for table 23.

The picture which emerges is one of the smallest farmers (0-5 acres) with access to less marketing information, selling proportionately more of their marketed surplus in the village to local shopkeepers and money-lenders to whom they may be indebted.

Two difficult problems exist in supplying marketing information to the small farmer. The first is the lack of standards and meaningful measures and grades of products as discussed in the last section. Price information must relate to units with which the farmer deals, but this is virtually impossible if measures are not standardized, produce is not graded and there is a vast proliferation of containers and weights used. The measures and grades used at the farmers' level should, if possible, also be comparable to those employed in higher stages in the marketing channel so that price movements can be compared.

The second problem is the collection and dissemination of price information at the level at which the small farmer sells his produce. A great deal of the small farmer's marketing is done at the village in small lots with individual traders. It is very difficult to obtain and process this information on a daily basis, which is what is needed during the marketing season if the information is to be useful to the farmer. The next best solution would be to provide information on sales through various channels at the smallest market centres.

As farmers become more commercialized, and particularly in connexion with cash crops, they also need long-term market forecasts on the basis of which they can plan their future production.

There is no doubt about the lack of market information at the small-farmer level. In some countries, the gap in the information system is being gradually filled, but a great deal remains to be done. A word of warning is necessary, however. Before resources are invested in the development of local market information systems, research should be undertaken to indicate whether there are important constraints to the effective use of improved information. The question should be asked whether increased information at the local level will be effective in improving actual market performance under the prevailing economic and institutional conditions. If not, efforts to provide such a system would be wasted.

(c) *Structure of the market, marketing margins and efforts for structural improvement*

(i) *Market structure*

Apart from the technical aspects of marketing, such as the provision of transport, storage facilities and market information, small farmers may be at a disadvantage because of the structure of the marketing system. In other words, the extent to which the benefits of marketing efficiencies are passed on to the small farmer depends in large part on how competitive is the marketing structure. On the one hand, extremely small competitive traders may lack the capital resources to institute measures to increase efficiency. On the other hand, the trader may have sufficient monopsony power to prevent any advantages from being passed on to the small farmer. Is this the case or not? The matter is controversial, largely because there has been insufficient research of this question in the region. In some of the literature, the existence of a relatively large number of small independent marketing enterprises is taken as grounds for arguing the existence of competition and fair returns to the farmer. On the other hand, there is evidence and much belief to the contrary. It is argued that private traders have succeeded in enmeshing the small farmers in semi-feudal relations. What is worse, the rural power structure is such that, when public institutions have been set up to raise the quality of marketing and transmit the benefits to the weak and unorganized farmer, they have been perverted by these private intermediaries.

An effort will be made here to throw some light on the position of the small farmer by examining some evidence on the structure of markets and on the size and meaning of the marketing margins in some places in the region. However, the great variability in marketing conditions and the extreme paucity of research make any conclusions particularly tenuous.

The more common belief in the region is that there is a lack of competition among traders. At a marketing seminar in the late 1960s, participants generally agreed that the monopolist village shopkeeper who also performed as a monopsonist village trader was widespread in Malaysia. This is known as the Monopoly-Monopsony (M-M) system. It was contended that this situation was strengthened because farmers relied on the "M-M operator" for credit. He had also been assisted by the government dealer licencing schemes which reduced ease of entry into some types of trading and by the prevailing social system, particularly racial cleavages and loyalities.[50]

Great care must be taken, however, to establish the charge of monopsony (or oligopsony) exploitation factually, not inferentially or circumstantially. But this is very difficult. In an analysis of the factors leading to monopsony power by traders vis-à-vis rubber small holders in Malaysia and a discussion of ways to test its existence and extent, Wharton suggested it is more likely to occur where:

a. The market is insulated (isolated communities, etc.);

b. Producers are more heavily specialized and have little alternative crop possibilities or employment opportunities;

c. The number of dealers per volume of produce marketed in the area is low;

d. The number of multiple economic services provided by traders is high (or the control over complementary factor inputs, including processing and transport, is strong).

Corroborative evidence might be obtained by examining cross-sectional data for price differentials (less transport costs and holding qualities constant) and time-series data for evidence of price rigidities.[51]

A 1968-1969 survey of farm level marketing in the Republic of Korea concluded that oligopsony existed, especially in markets of subsistence farmers who accepted trading offers made locally because their mobility to seek alternative outlets was limited by transport problems or they had tied sales. The number of offers to buy received by farmers was proportional to their degree of commercialization. Yet, in spite of farmers' complaints, "voluntary co-operative marketing" was almost negligible and government-enforced co-operative marketing had difficulty in competing with the private trade, especially regarding prompt payment and auxiliary services provided for farmers.[52]

---

[50] Ungku Aziz, "Advanced analyses of Monopoly-Monopsony system", *Proceedings National Agricultural Marketing Seminar*, 1967, Federal Agricultural Marketing Authority, Kuala Lumpur.

[51] C. R. Wharton, Jr., "Marketing, merchandising, and moneylending: A note on middleman monopsony in Malaya", *The Malayan Economic Review*, vol. VII, No. 2, October 1962, pp. 24-44.

[52] Sung Hoon Kim, *op. cit.*, p. 163.

Some marketing studies of various crops in various areas contain information on the number of traders patronized by small versus large farmers. This information is used to indicate the relative dependence of small farmers on very few traders and the resulting possibility of monopsony.

A sample survey of farmers in the Punjab, for example, showed that each of the small farmers sold in the local market to one commission agent with whom they had had long ties. More of the larger farmers patronized two commission agents and the co-operative marketing society.[53]

In the Philippines, a review of the marketing system for *palay*, copra, *abaca* and tobacco[54] in the 1960s concluded that, in each case, circumstances at the farm level usually gave buyers "enough monopsony power to be able to pay the farmer less than a competitive price". Corn farmers in the Philippines also have very limited choice in marketing their harvests and "the possibility of the traders exercising monopsony power is quite high".[55]

There is a growing body of literature, however, that disputes the professed lack of competition in markets. On the basis of scattered evidence, particularly from Lele and Cummings, Mellor has concluded that, in the case of foodgrain marketing in south Asia, "it is likely that the trade is competitive (and) that returns to factors of production are commensurate with those in other uses".[56] Moore, Johl and Khusro reached the same conclusion in their analysis of Indian foodgrain marketing. In addition, they considered that financial barriers to entry for village dealers and *katcha arhtias*[57] are relatively low; though caste may prove a barrier in some areas.[58] Again, "examination of a large wheat market in the Punjab showed that the market was highly competitive and served effectively as a pricing signal for producers, and that prices reflected supply and demand conditions very well in the areas where government food-zoning regulations were not operating".[59]

Ruttan believes that "there is remarkably little empirical evidence with respect to the implications of market structure for either pricing efficiency or income distribution in Southeast Asia".[60] Examining limited empirical tests for rice and corn in the Philippines, rice in south Viet-Nam and evidence from produce markets in Thailand, it was concluded that these markets were relatively efficient in transmitting price information and incentives between consumers and producers and any arbitrary power to modify price behaviour was of relatively short-run or local significance. Concentration was therefore recommended on the improvement of technical facilities, such as roads, rather than on programmes designed to correct defects in market structure, in efforts to improve the marketing system and returns to the producer.

In Thailand, a study sought farmers' opinions as to whether there was competition among traders to purchase their crops. "Seventy-one per cent of farmers reported themselves satisfied with the prices they received." It could be argued that the farmers were underpaid and unaware of the value of their product to the trader. However, the authors state: "It seems more probable however that the middlemen do in fact pay a reasonable price."[61] Similar observations were reported by Muscat. "One conclusive, if frustrating, proof of the competitive nature of the maize trade was the complete disinterest of maize farmers in Pakchong in efforts of the Ministry of Co-operatives and the U.S. Operations Mission to form a maize marketing co-operative. The proposed co-operative was specifically rejected by the farmers in favour of continued reliance on the competitive maize middlemen."[62]

Care must be taken, however, to differentiate between the possibility of monopsonic exploitation of the farmer because of the small number of available traders at the farm level and the opinion that these farmers have of the traders with whom they deal.

---

[53] S. C. Sharma and K. S. Gill, *op. cit.*

[54] Zdenck Cernohavs, "The marketing of agricultural products in the Philippines", *The Philippine Economic Journal*, No. 9, 1st semester 1966, vol. V, No. 1, pp. 64-94.

[55] N. R. Deomanpo and E. B. Torres, *op. cit.*, p. 12, and H. Ma Orticio, "Marketing of corn and corn products in selected provinces, Philippines", M.S. thesis, Department of Agricultural Economics, College of Agriculture, University of the Philippines at Los Banos College, Laguna, Philippines.

[56] J. W. Mellor, "The character of agricultural markets as they relate to the development of co-operatives", paper presented at A.D.C. seminar "Adapting Co-operatives and Quasi-Co-operatives to the Market Structures and Conditions of Underdeveloped Areas", University of Kentucky, April 1967. For evidence, see Uma J. Lele, *Foodgrain Marketing in India* (Cornell University Press, 1971); R. W. Cummings, *Pricing Efficiency in the Indian Wheat Market* (New Delhi, Impex India, 1967), p. 203; and "Effectiveness of pricing in an Indian wheat market: a case study of Khana, Punjab", *American Journal of Agricultural Economics*, 50(3), August 1968, pp. 687-701.

[57] Commission agents in primary markets.

[58] Moore, Johl, Khusro, *op. cit.*, pp. 52-53.

[59] G. R. Spinks, "Attitudes towards agricultural marketing in Asia and the Far East", *Monthly Bulletin of Agricultural Economics and Statistics*, vol. 19, No. 1, January 1970, p. 6.

[60] Vernon W. Ruttan, "Agricultural product and factor markets in southeast Asia", *Agricultural Co-operatives and Markets in Development Countries*, ed. K. R. Anschel, R. H. Brannon, E. D. Smith (New York, Praeger, 1969), pp. 83-92, "Much of what passes as analysis in the marketing literature represents little more than a repetition of the conventional wisdom regarding middleman behaviour with little or no empirical content", p. 83.

[61] J. F. Long, M. F. Long, A. Kamphol and P. Sawart, *Economic and Social Conditions Among Farmers in Changwad Khonkaen*, Bangkok, Faculty of Economics and Co-operative Services, Kasetsart University, September 1963, p. 52.

[62] R. J. Muscat, *Development Strategy in Thailand: A Study of Economic Growth* (New York, Praeger, 1966), p. 166. This reaction of the farmers may, however, say more about the unacceptability of the prices and services offered by the co-operative than about the competitiveness of the existing market.

In a study[63] of marketing of rice, peanuts and soybeans in northern Thailand, for example, most farmers did not find that the availability of too few merchants in the farmer's village was a major marketing problem, even though 34-44 per cent felt that their market outlet consisted of only one or two buyers. Most of the potential buyers were in the farmer's village or a neighbouring village. Their proximity may have accounted for the remarkable lack of complaints by farmers about traders: 97-99 per cent of farmers interviewed had not felt cheated by a merchant in that year.

Determination of the existence of alternative marketing outlets do not, however, indicate their real availability to farmers whose choices are often circumscribed by a whole array of socio-economic obligations that tie them to certain traders. As expressed by FAO, a main "cause of the lack of competition (at the farmer level) lies on the farmer's side in that socio-economic and educational handicaps and a traditional lack of confidence in approaching alternative buyers deter him from taking all possible steps to secure the best price for his produce".[64]

It can only be concluded that the evidence available is insufficient to indicate the existence or extent of the disadvantage borne by small farmers because of lack of competition between buyers of their produce. Whether a particular market is reasonably competitive or not is an empirical question that can only be answered by field research. Isolated examples of this research exist in the region, but much more rigorous research is needed in developing countries on this question.

(ii) *Marketing margins*

A number of marketing margin studies have been undertaken in developing countries of the region and they are very often used to illustrate the high cost of marketing and as evidence of the ability of middlemen to gain high profits by squeezing the farmers.[65] However, high margins can indicate efficiency or inefficiency, a monopolistic situation or the existence of too many small high-cost traders. Very little attempt is made to evaluate margin studies in terms of marketing costs or to compare their reasonableness with the services provided.

In fact, an examination of the percentage of retail prices going to the producers in developing countries will show that it is extremely high compared with developed countries.[65] It has been shown that, in the case of foodgrains, which comprise a high proportion of agricultural marketing in low-income countries, the marketing margins are very low indeed. "This has the important implication that simply reducing this margin substantially cannot in itself have a very marked effect on agricultural prices"[66] irrespective of the competitive nature of the market.

In India, a study of various kinds of milled and hand-pounded rice showed that the proportion of the consumer price going to the producer ranged from 67 to 81 per cent and depended on the distance between the producing and the consuming areas.[67]

Table 25 shows some Indian data on the distribution of the retail price of various commodities between the producer's share, processing and transport costs, and the traders' margins. Table 26

---

[63] A. R. Thodey and Paiboon Suthasupa, *loc. cit.*, pp. 10-19.

[64] FAO, *Report of the Technical Meeting on Marketing, Asia and the Far East Region*, 1959, p. 17.

[65] G. R. Spinks, *loc. cit.*, p. 7.

[66] J. W. Mellor, *The Economics of Agricultural Development* (Cornell University Press, 1966), p. 333.

[67] Economic and Statistical Adviser to the Government, *Rice Economy of India* (New Delhi, Ministry of Food and Agriculture, 1961), pp. 30-31.

Table 25. COMPONENTS OF THE COST OF MARKETING

(percentage of retail prices)

	Wheat	*Rice*	*Cotton*	*Sugar*	*Potatoes*	*Tobacco*
Producers' share	68.5	66.8	87.6	65.2	56.3	42.2
Processing and transport cost .	26.3	23.8	7.5	19.9	19.7	41.1
Traders' margin	5.2	9.4	4.9	14.9	24.0	16.7

Source: Raj Krishna, "The role of the Government in agricultural marketing reform", *Proceedings*, National Agricultural Marketing Seminar, November 1967, Ministry of Agriculture and Co-operatives, Kuala Lumpur, 1968, p. 23.

contains similar data on the marketing of rice in Indonesia. The observed differences between different commodities are not surprising given the differences in processing, length of haulage and storage, and marketing channels and practices.

Table 26. COMPONENTS OF THE COST OF MARKETING OF RICE IN KRAWANG, WEST JAVA

(percentage of retail price)

	Channel 1	*Channel 2*
Producers' share	79.81	72.56
Processing and transport cost .	11.47	20.17
Traders' margin	8.72	7.27

Source: Raj Krishna, *loc. cit.*, p. 25.

The problem remains, however, to evaluate the marketing margin in relation to the services provided. There are two components in marketing margins: the cost of the services and the profit of the market intermediary. The cost component will depend on the efficiency of the operation — the intensity of competition, the extent of capacity utilization, the nature and amount of services rendered and the amount of produce losses. In developed countries, the profit element is proportionately very low, whereas, in the developing countries, some reports show it to be the dominant element.[68] However, few quantitative studies have been carried out, and much of what is called profit is in fact part of traders' costs, such as the cost of the money loaned by traders to farmers, the cost of social help extended to farmers, the cost of spoilage and the cost of bribes, taxes and service charges not related to actual services provided.

(iii) *Government marketing*

In the belief that the power of the private traders puts the small farmer at a disadvantage, many Governments in the region have intervened in the market on the farmers' behalf. Market intervention has taken many forms and its impact on small farmers is not always clear.[69] A thorough review of these operations in the different countries would be useful. A number of Governments have implemented some sort of price support programme to insure farmers against the instability of agricultural prices and to guarantee them an outlet for farm produce, directly to government agencies, thus providing an alternative to the private traders. Minimum support prices are now used in a number of ESCAP countries, including Japan, the Republic of Korea, Thailand, Indonesia, the Philippines, Malaysia, Sri Lanka, Burma, Bangladesh, India and Pakistan, for a whole range of crops. The minimum prices are supposed to cover the cost of production with provision for a "normal" profit. They do not, of course, ensure minimum incomes in the case of output variations.

In some countries, the policy of minimum support prices has been extended to obligatory government procurement. In most cases, a procurement programme is connected with a public distribution system and the operation of a buffer stock for the benefit of consumers. A further extension of government activity is into state trading, often for export crops.

The entrance of the Government into marketing does not necessarily benefit the small farmer, and a great many problems have arisen regarding the determination of the price policies of government organizations. These agencies are often bedevilled by poor administration and unskilled or corrupt personnel. It is usually not feasible for them to extend their operations to the level of the small farmer at the village or in the primary markets. Their purchasing is done at a higher level in the marketing system. If they have endeavoured to reach the small farmer, they have in many cases been unable to provide a viable alternative to the existing marketing options. Farmers have often preferred the services provided through the traditional private marketing channels.[70]

---

[68] For instance, in the United States, only 8.4 per cent of the total marketing margin for all farm foods forms the profit of the marketing intermediaries. (Calculated from data in F. L. Thomson, *Agricultural Marketing*, 1951, p. 231). In the less developed countries, there exists a general paucity of statistics on over-all marketing margins for all farm foods. However, fragmentary information on profits has been determined by commodity marketing studies in some countries. In Malaysia, for example, a study shows gross profit constitutes 76.7 per cent of total marketing margins for cabbage; in Pakistan it constitutes 77 per cent of the total marketing margins for citrus fruits. See Abdur Rashid and M. Aslam Chaudhry, "Marketing efficiency in theory and practices", A.D.C. *Teaching Forum*, No. 28, April 1973, foot-note 14.

[69] The following discussion draws heavily on an unpublished paper by Ashok Mitra, "Rural poverty and agricultural marketing", written for the United Nations Asian Development Institute, Bangkok, in 1975.

[70] R. Sau, "The small farmer and the market: with special reference to rice and wheat in India" (unpublished), ESCAP, 1975, p. 6. See summary in section 3(a) of this chapter.

For a discussion of rice price and procurement policy and programmes in Indonesia, see *Bulletin of Indonesian Economic Studies*, July 1971, pp. 89-90; July 1973, p. 54; March 1975, pp. 20-25; July 1975, p. 20.

Recent government activity in marketing jute and rice in Bangladesh is discussed by Shamsul Islam in "Agricultural marketing in Bangladesh", an unpublished paper prepared for the United Nations Asian Development Institute in September 1975. Islam concludes that "most (jute) purchasing centres are located in areas which are not easily accessible to the small farmer, and they (therefore) hardly derive any benefit from the Government procurement programme". Since 1973, procurement of rice has been a regular and consistent policy of the Government, but the procurement price has been far below the market price every year even since 1971/72.

The conclusion is clear that the provision of public marketing arrangements alone has seldom been able to tackle the complex social and institution whose aim is to improve the farmers' position must be capable of competing with existing private instiutions for the farmers' custom.

(iv) *Marketing co-operatives*

It has been the aim of the co-operative movement in Asia to meet the small farmers' need. The theory was sound enough. The farmers, economically weak alone, would join together, pool their resources and create a base from which to develop marketing outlets of their own. Co-operative credit arrangements would take the place of credit from the landlord or trader. The co-operative would be able to provide technical skills needed by the farmer and inputs at more reasonable prices or on better terms. The co-operative movement would become a power base for the previously unorganized farmers.

Unfortunately, it has not happened that way. Of the predominately private enterprise economies in the region, co-operative marketing has only been successful in Japan, where over 90 per cent to rural produce is now marketed through the co-operative societies. In many other countries the story of marketing co-operatives is poor to dismal. It should be remembered, however, that the social and cultural environment and the methods of organization of co-operative marketing in Japan have been different from those in other countries in the region. The Japanese experience may therefore not be appropriate for transplantation to ESCAP developing countries.

A fairly typical situation has been recorded by a study in Pura Khagan village and Allahabad primary market in India in 1967-1968.[71] The net cash returns to farmers were compared between selling wheat, barley, rice, *jowar* and *bajra* through different intermediaries: village dealers, commission agents and co-operatives. Farmers netted the highest monetary returns from co-operatives, the second highest when selling through an agent and the lowest from a village dealer. The small farmers relied almost entirely on village dealers; the larger farmers sold through the agents and co-operatives. The comparison, however, did not consider various non-price factors and it was these which made the village dealers and commission agents more attractive to small farmers than the co-operatives. Although co-operatives "may provide a slightly higher net return to farmers, they normally do not solicit in the villages, provide food and shelter for the farmer and his animals in the market, act as a bank, provide business advice or pick up grain at the village".[72]

A fuller discussion of co-operatives is contained in chapter 7 below. Here we shall only mention the requirements if a co-operative system is to provide a viable marketing alternative. Firstly, farmers must have a degree of self-confidence to enable them to participate in their own organization and for some of them to assume positions of leadership. In some countries, the social pressures have been such that small farmers have not been able to develop this self-confidence.

Secondly, the marketing function of a co-operative must be combined with the provision of other agricultural inputs and services. Farmers will then be freed from obligations to other persons or organizations and able to take advantage of the opportunity to market through co-operatives. This applies particularly to the provision of credit for both production and marketing purposes. But it also includes the supply of material inputs, extension services and storage facilities.

Thirdly, the co-operative staff must be good managers with enterprise, honesty and initiative. These attributes have often been sadly lacking among the government officials who have initiated co-operatives in many countries. The lack of managerial talent has been the rock on which many co-operative efforts have been wrecked. In other words, the co-operative must be a successfully operating commercial enterprise, able to compete for farmers' custom with traditional traders. After a certain grace period, it should be profitable, building up its operations with members' savings. The profitable operation of a small farmers' co-operative, however, is difficult because the individual farmer is small. The administration of credit to the small farmer is at high cost, costs of dealing with his small lots are high and it is often not possible to "bulk by quality". Successful marketing co-operatives will normally have to be larger than production co-operatives in order to reap the benefits of the economies of scale available in marketing activities.

Finally, co-operatives designed for the benefit of small farmers must be controlled by small farmers. In too many countries the Government has taken an inordinate interest in the detailed workings of co-operatives. Paternalism has killed whatever initiative the small farmers initially had. On the other hand, control of co-operative institutions has sometimes been captured by big farmers and traders and been operated for their benefit, thus negating the purpose of their establishment.

---

[71] A. Stewart Holmes, *Market Structure, Conduct, and Foodgrain Pricing Efficiency: An Indian Case Study* (New York, MSS Publishing Co., Inc., 1971).

[72] Moore, Johl, Khusro, *op. cit.*, p. 57.

However, if evidence indicates in a particular situation that marketing at the primary level is conducted with an adequate degree of competitiveness and efficiency, Governments may wish to encourage the small-scale labour-intensive private marketing entrepreneurs. The Government's role in promoting competition in private marketing can be quite substantial. First, it can encourage marketing to take place in regulated markets where standards are enforced. Experience in India has shown that this increases the efficiency of market operations and promotes competition between traders, increasing producer prices. Second, it can provide credit to small traders to enter this field, and third, it can invest in transport and information facilities which both serve to open the market system.

The major need at present appears to be more rigorous marketing studies for particular crops and locations on which to base government action.

3. *Review of some marketing situations in the region*

Since published material is limited and the marketing situation of the small farmer varies with crop and location throughout the region, some reviews of the problems of small farmer marketing were commissioned for this *Survey*. The five studies are presented in summary, as they cover a number of relatively common situations from which useful conclusions can be drawn. The first deals with the marketing of foodgrains by small farmers in India, the second with marketing of rice and corn through private channels in the Philippines, the third with the experience of small farmer marketing in Bangladesh, particularly under the Comilla Development Programme, the fourth examines a case of contract marketing in northern Thailand, and the fifth the marketing of rubber by small-holders in peninsular Malaysia.[73]

(a) *Marketing of foodgrains by small farmers in India*

In India, small farmers, defined as having operational holdings of up to 2 hectares, are a numerically large group, some 46 million in all. They constitute 52 per cent of rural households but operate only 20 per cent of the cultivated area and supplied something over 10 per cent of the total marketed surplus of agricultural produce in the early 1960s. A small farmer produces mainly for household consumption; not even one-fifth of his production finds its way into the market.

The Government, through various public agencies, procures and distributes about 30 per cent of the marketed surplus of rice and over 50 per cent of that of wheat. Procurement of foodgrains is a State matter and systems of procurement vary by State and among crops. In general, three systems are involved and make use of a levy on millers and/or dealers, a levy on producers, and outright purchase. While the small farmers are by and large exempted from the purview of compulsory levies, they can sell their grains to the Government at the procurement price which is usually below the prevailing market price. In many places, however, small farmers are forced by their poverty to sell their produce early in the local markets at distress prices which are below the prices offered by the Government for its procurement at a later date. There are authoritative reports[74] to the effect that large farmers quite often purchase the crops of small farmers in advance of the time that the procurement agency enters the market. They then use these crops to meet their own levy obligations to the Government. As a result, the small farmers do not get the benefit of the official procurement price, let alone the later higher market price.

In selling his output, the small farmer deals mainly with private agencies. Most of his sales take place either at the farm gate or at the market in the farmer's own village, more so in the case of rice than in the case of wheat. For all rural households, 40 per cent of paddy and rice sold changes hands at the farmer's household; about 15 per cent at the local village market. For wheat, 40 per cent is sold within the farmer's own village. Only the larger farmers with sizable surpluses can afford to take their produce to the larger wholesale markets.

Village markets are usually unorganized and poorly equipped; most of them are uncovered and without storage or stallage facilities. Some of them lack roads altogether; others are connected with towns and wholesale markets by roads which are very poor.

Although there are wide regional variations, village markets are linked with large urban centres through a multiplicity of intermediaries, such as village traders, itinerant dealers, commission agents, wholesalers and millers. Along the line from the village markets are the "assembling markets" or primary wholesale markets. Two out of three of these are regulated. Under the Agricultural Produce Act, each regulated market has a market committee with representatives of growers, traders and local bodies. The committee defines market practices and fixes market charges payable by various parties involved in the transactions.

---

[73] The authors of the studies from which the following summaries have been drawn are, respectively, Ranjit Sau, Professor of Economics, Indian Institute of Management, Calcutta; N. R. Deomanpo and E. B. Torres, Officer-in-Charge and Instructor, Institute of Agricultural Economics and Administration, University of the Philippines at Los Banos; Khandker Mahmudur Rahman, Deputy Director, Bangladesh Academy for Rural Development, Comilla; Peter A. La Ramee of the Northern Agriculture Development Centre, Thailand, and Lim Sow Ching, Head of the Rubber Economics and Planning Unit, Malaysian Rubber Research and Development Board.

[74] Government of India, National Commission on Agriculture, *Interim Report on Agricultural Price Policy* (New Delhi, 1975), pp. 69-70.

The traders in wholesale markets do supply certain services to the cultivators who come there to dispose of their surpluses. For instance, regulated markets usually have a provision in their by-laws to assure prompt payment to the producer. In some markets of Maharashtra, it is obligatory for the trader to pay the cultivator's expenses for staying in the market town in the case of a delay in payment.[75] In Punjab, the commission agent customarily performs the role of a mediaeval banker in that a Punjabi cultivator deposits the returns from the sale of his produce with the commission agent as a safety measure and as a matter of convenience. The cultivator withdraws money when he needs it.[76] To take another example, a cultivator usually brings his produce to the shop of the commission agent who grades it in various lots by size of the grain, moisture content, and foreign matter.[76] However, what is not yet clear is to what extent the small farmers participate in primary wholesale markets and avail themselves of these services. In the case of rice, small farmers presumably do not come up to the primary wholesale markets at all; they limit their transactions mostly to the level of the village market. However, in the case of wheat, it is possible that in some parts of India such as Punjab some of the small farmers also do come to the primary wholesale market.

The foodgrains market is not formally monopsonistic in nature, since there is a fairly large number of purchasers. But a small farmer often becomes tied to one or two traders who lend him money for his consumption and other needs and bind him in many other ways. In addition, the dissemination of market information is still at a primitive stage. The major source of information about primary wholesale markets is personal visit to the market or information passed on by neighbours. While the need for further dissemination of market information through various media can hardly be exaggerated, it should be recognized that, in the absence of adequate physical facilities such as transport, warehousing, etc., and the economic ability of the farmer to hold on to his surplus if necessary, the farmer cannot be expected to get full potential benefits from the market system.

The Government has been making concerted efforts to improve the farm income of small farmers in the form of Small Farmers Development Agency (SFDA) schemes. These efforts are multidimensional in that they are intended to help increase production in small farms, facilitate marketing of the produce, and maintain all-round steady growth. The agency can make grants towards capital costs of setting up infrastructure facilities and is encouraging, through interest rebates, the linking of credit with marketing through the co-operative system.

However, the interim review reports of these schemes have drawn attention to the disturbing fact that relatively large farmers have infiltrated into the system and are taking advantage of the facilities which are meant only for small farmers. It is well-known that a similar fate has overtaken the co-operative movement in India and has eroded the effectiveness of the co-operatives in rural areas to achieve their objectives.

For a brief period in 1973-1974 India experimented with the nationalization of the wholesale trade in wheat all over the country; the wholesale trade in rice was nationalized only in the state of Assam. The National Commission on Agriculture made some observations on the experiment. It noted that, while nationalization of the wholesale trade might have the advantage of eliminating allegedly inefficient middlemen and ensuring better prices to the farmers, the Government's administrative machinery was quite unable to handle such a task. The prospects of the Government again adopting such a measure are rather dim in the near future.

The problems faced by small farmers in India in marketing their output arise partly from lack of marketing infrastructure — roads, transport facilities, storage, etc. — but partly from the conditions under which they produce. They borrow even to meet consumption needs and mainly from village money-lenders. As a result, they become perpetual prisoners of the loan. Improvement in the marketing system alone will not be very productive unless their production relationships are also changed.

(b) *Marketing of rice and corn through private channels in the Philippines*

Rice and corn marketing by small farmers in the Philippines exhibits all the classic problems mentioned earlier in this chapter.

Rice and corn farms comprise more than half the total number of farms in the Philippines and 85 per cent of rice farms and 87 per cent of corn farms are of less than 5 hectares. These small farmers produce mainly for their own consumption. Their production problems are considerable and the Government has initiated massive assistance programmes, mainly to help cereal growers to increase productivity and output. In general, marketing problems are more complicated, especially for small farmers, and such problems are largely outside their control and have been relatively neglected by policymakers.

---

[75] U. J. Lele, *Foodgrain Marketing in India: Private Performance and Public Policy* (Ithaca, Cornell University Press, 1971), p. 54.

[76] *Ibid.*, p. 55.

Firstly, the marketable surplus of individual rice and corn farmers is small and, with such small quantities being offered for sale, the individual farmer's bargaining power is very weak relative to the buyer. The unit cost of transporting the product to a market is high for the farmer and, as a result, most farmers sell their produce to the buyer who comes to the farm. Selling at the farm gate limits the farmer's opportunity to compare prices since he deals only with the one or two buyers who visit the farm. The farmer therefore becomes a price taker.

Secondly, and exacerbating the situation described above, many small farmers are tied to farm-gate traders through the provision of credit. Rice and corn farmers in Mindanao, for example, reported that the reasons for borrowing from traders are convenience, immediate release of cash, and the non-requirement of collateral and paper work. However, such loans are extended on condition that the borrower sells his produce to the lender at a price lower than the prevailing market price at the time of sale. Although the legal maximum interest rate is 12 per cent per annum, the price reduction is the equivalent of an effective interest rate considerably higher than this. Small farmers are often unable to obtain credit through alternative sources such as the banking system because collateral is required and, until very recently, with the advent of land reform measures, many small farmers were either tenant farmers or did not have the paper to establish legal ownership of their land.

Thirdly, small farmers are hampered by lack of infrastructure. Farm-to-market roads are poor and there is a lack of transportation facilities. Farmers also lack good storage and drying facilities, so that their produce, sold right after harvest, has a high moisture content. Fourthly, the traditional marketing channels in the Philippines for *palay*/rice and corn are long and complex, with the grain passing through several tiers of middlemen before reaching the final consumer. It has been suggested that changes in the structure and organization of these channels could be to the benefit of the small farmer. In many cases, the procurement operations of local assemblers at the farm level are financed by wholesalers further along the marketing line. In return, the grain is committed to the financer in much the same way as the marketing of much of the grain at the farmer level. This situation makes it difficult for new dealers to enter the business and compete with established outlets, and competitive buying at the farm gate is kept to a minimum. There is some evidence that points to the need for assistance to small marketing business to encourage competition and to increase productivity by upgrading facilities such as storage and local milling. It is believed that small farmers would be able to reap some of the benefits of such increased efficiency.

Two approaches can be made to the marketing problems of small farmers. The first is to consider what the farmers can do for themselves and the second is what the Government can do for the farmer. First, in an effort to increase their net returns by reducing marketing costs and increasing their bargaining power in the market place, the seemingly most logical move is for farmers to operate in groups such as co-operatives. Except in a few areas, however, the co-operative movement in the Philippines has been unsuccessful. Lack of education and poor administrative ability on the part of farmers combined with unscrupulous co-operative managers have left many farmers disillusioned. The Department of Local Government and Community Development is attempting a fresh approach to the problem and a pre-co-operative organization *(Samahang Nayon)* is being set up in villages to educate farmers in the conduct of co-operatives as viable farmers' organizations.

From the government side, most programmes are designed to increase output. However, through the National Grains Authority (NGA), the Government has entered the marketing phase of the grains industry. The bulk of the grain trade in the Philippines remains in private hands, but the NGA does have regulatory authority and operates a price support programme which establishes a floor price for the farmer if he is free to take advantage of it.

(c) *Experience of small farmer marketing in Bangladesh, particularly under the Comilla Development Programme*

Small farmers in Bangladesh as a whole suffer from the usual disadvantages in marketing their agricultural produce: inadequate facilities for transportation and communication, poor holding power due to lack of storage facilities, their poverty and the pressure from creditors, lack of grading and standardization, fraudulent practices in the market place, inadequate market information and a general lack of producers' organizations. It is instructive, therefore, to look at the experience of the Comilla

Rural Development Programme in its efforts to improve the marketing system of small farmers.

It would be expected that development of small farmer marketing under the Comilla programme would have been easier and more successful than in the rest of the country because a viable system of producers' co-operatives had already been established on which a marketing system could be built. The process, however, was very difficult.

The Academy of Rural Development at Comilla has been concerned with experimentation in strategies and institutions for rural development in the Comilla Kotwali *thana*[77] since 1959. The basis of the development effort was the establishment of a two-tiered system of co-operatives: village-based primary farmers' co-operative societies, each serving an average of 38 members, and a Central Co-operative Federation at the *thana* level to which the village co-operatives are affiliated. The major components of the rural development effort through the co-operatives have been training, extension education, capital formation, credit, channelling of supplies and services, introduction of mechanization including irrigation, literacy programmes, women's education and home development and family planning. As a result of these activities, the production of crops increased rapidly by about three times between the early 1960s and 1975. With the increase in production, the farmers were confronted with the need to improve the marketing system to reap the full benefits of their increased output.

The first attempt at marketing was made with vegetables in 1962. The effort was concentrated in a few villages where the Central Co-operative undertook to collect and sell. The farmers did not respond favourably; the management was inexperienced and poor and the venture collapsed.

In 1963, a small creamery was set up by the Central Co-operative to process milk from farmers through their village-level dairy co-operative. A feed mill was also established. However, the dairy co-operative also collapsed through lack of interest and poor management. The creamery, now modernized, and the feed plant have continued to operate, but the creamery depends mainly on acquiring milk from traders who collect it in small quantities from farmers both within and outside the Comilla district.

In 1964, the Central Co-operative set up a small rice mill and initiated efforts to organize paddy marketing for the small farmers. Paddy was collected through the managers of the village co-operative societies. An attempt was also made to link marketing with credit. The co-operative paid a premium over the prevailing market price if the farmer repaid his loan to the Central Co-operative with his paddy, rather than requesting a cash sale. On the whole, the experiment was a failure. The farmers preferred to sell for cash and preferred the convenience of selling paddy to private traders in their village markets or at the farm gate. To run at full capacity, the mill had to purchase paddy from traders. A modern automatic mill was set up in 1971 to replace the old one, but it is not yet operating efficiently. The operation was bedevilled by organizational problems and malpractice at the management level, especially the management of the village co-operative societies.

In the early 1960s there was great pressure for the establishment of a cold storage plant because of the increased output of potatoes. In 1965, the Central Co-operative set up one plant and later another. The plants store mainly seed and table potatoes, most of which are purchased from traders who buy small quantities at the farm level. However, most of the space in the plant is rented out to traders. The small farmers have benefited from the cold storage plants because good seed potatoes are now readily available, but it appears that the traders are the main beneficiaries. The farmers prefer to continue selling to private traders because they will take small lots at different times without the formalities and quality control required by the Co-operative Store.

From 1962, many ideas were tried to help organize marketing for the small farmers, including the collection of market information. By and large, these were unsuccessful. Organization at the farmers' level was not developed or adapted to meet their requirements. The village co-operatives were not organized to prevent malpractice and there was a lack of trained business-like management at all levels. This is a disappointing outcome in view of the well organized and serviced base of co-operatives which existed in the Comilla programme. The organizational system that brought about substantial transformation in agricultural production in the last decade has not proved capable of solving the marketing problems of small farmers.

A sample survey conducted in the Comilla *thana* in July 1975 indicated that the small farmers there still faced marketing problems similar to those existing in the rest of the country. Most of the farmers were paddy farmers, with some also growing potatoes and other vegetables. Paddy was sold at both the market and the farm gate, while rice, potatoes and other vegetables were sold mostly at markets. Most of the farmers said that they collected their market information from the local markets and that they would be immensely benefited by improved communications. About two-thirds of the respondents expressed various complaints about the traders. The main complaint concerned cheating in weighing and measuring the product, yet 84 per cent of farmers considered that they were operating in a highly competitive situation with a large number of traders involved in marketing the farmers' produce. Paradoxically, however, all but a few thought that they did not receive a fair price for their produce and that their returns could be increased if they did not have to sell immediately after harvest to meet loans or consumption needs, if better storage facilities were available, if roads to market and communications were improved, and if they could get to larger markets and circumvent some of the intermediaries.

---

[77] A *thana* is the administrative seat of government in the rural area. The Comilla *thana* has an area of 107 square miles. It is an area of small farmers with an average land holding in 1975 of about 1.2 acres. Only 4.3 per cent of the families own more than 5 acres. Before the introduction of the new co-operative system in the Comilla *thana*, it was one of the poorest areas in the country.

(d) *Contract marketing in northern Thailand*

It has been suggested that the system of contract marketing, where the producer receives the required inputs and technology in return for a guaranteed market and price, holds considerable advantages for the small farmer. Basically, it is a system of forward pricing which reduces the farmer's risk. This is especially important in the production and marketing of perishable crops. It is also a system which encourages production to meet certain quality and timing requirements of processors and consumers. If well organized, it can lower costs in both growing and marketing by developing a delivery system for a total package of inputs and by taking advantage of scale economies in marketing.

Contracting has been tried in a number of countries of the region. The Republic of Korea's agricultural system, for example, has made significant use of contracts to provide supplies for exporters, processors and the armed forces. In general, however, the contracts in the Republic of Korea have not been made directly with the farmers but through local co-operatives and the National Agriculture Co-operative Federation to the user.

The case that is summarized here involves small Thai farmers directly contracting with a private processing company. A review of this experience is useful because it reveals very clearly the many factors that must be dealt with if contract marketing is to be successful from the point of view of both the contractor and the small farmer.

The company concerned is a service company designed to produce and/or provide raw materials for a complex of food-processing companies in northern Thailand. The final product is intended for export to North America, Europe and Japan. The company planned to obtain raw vegetables partly from its own land but mainly from farmers.[78] Co-operating farmers were to grow vegetables in the dry season. Their production was to be supervised, from land preparation to harvesting, by company-provided resident agriculturists. The latter were also expected to dispense various inputs, such as fertilizers, chemicals, sprays and such equipment as water pumps and sprayers, and to purchase the harvested produce directly from the co-operating farmers. The company undertook to provide free seed or seedlings in the first year of planting and to procure agricultural credit at an interest rate of not more than 12 per cent per annum for the purchase of the inputs by participating farmers. The company contracted to buy at an agreed price all the produce harvested from the land stipulated in the agreement with farmers. On their part, the participating farmers contracted to grow the crop according to the specified technical requirements, including timing, and to sell to the company all the produce grown on land stipulated in the contract.

The venture coincided with the spread of irrigation and the expanding interest of farmers in the production of cash crops in the area. As promoted, the venture was enthusiastically received by many farmers. It was for them a scheme whereby they were assured of the necessary inputs to produce a crop on credit with a guaranteed market at an agreed price for whatever was produced.

Many difficulties arose in the first crop season of the winter of 1974/75. A review of these difficulties is instructive and leads to a number of conclusions, if such undertakings are to be successful. Firstly, any programme which involves technological change for small farmers must be exhaustively researched and tested under the conditions under which it is to be implemented. Arrangements must also be made for the dissemination of the new technology to farmers by competent extension workers, and farmers' understanding and acceptance of the new technology must be ensured. In the case under review, the company had not adequately tested the crops to ensure that they fitted into the farmers' production cycle. Moreover, farmers who were already growing the same crops as those required could not understand the need for changes in technology for other species. Many of the company's extension workers involved were inadequately trained or unwilling or unable to spend the necessary time in the fields. As a result, timing and quality standards of the produce were not met.

---

[78] Farmers in the area are predominantly small farmers with an average holding of 1.4 hectares.

Secondly, a contract marketing scheme is a complex operation, heavily dependent on working to a strict time schedule. This is the case for both the marketing organization and the participating farmers. It has important implications for planning the operation and in regard to farmers' attitudes if they have been unused to working with a time constraint. It is necessary that farmers produce crops to fit the daily needs of a factory in terms of both quantity and quality. This means that production and harvesting, and therefore the application of inputs, must conform to the schedule. In the present case, both the enterprise and the farmers failed in this regard. Fertilizers, tractors and credit, for example, were not provided when expected. For several reasons, but particularly because they found it difficult to vary their traditional farming methods, farmers did not conform to the required time schedule for land preparation, planting and transplanting.

As a result of the difficulties that arose in organizing a timely provision of inputs and in persuading farmers to work to a production schedule, the company decided to reduce its commitment drastically in this regard. The contract for the second year of operation made no mention of the provision of inputs (credit, tractors or fertilizers) other than seed. A large proportion of the extension workers were released; only a small number being retained as an advisory group, available to farmers only on request. In other words, the farmer was guaranteed a market but no longer with full production assistance.

Thirdly, the educational level of the farmer is important. If he is poorly informed or is unable to understand the import of technical innovations, either in production or in marketing, it is difficult for the small farmer to improve his position. The lack of education of farmers made it difficult, in this case, for many of them to understand new production methods, the requirements and responsibilities of a written marketing contract and the paperwork involved.

Fourthly, in contracting with a large marketing organization, small farmers need the support of a farmers' group or association and government assistance to provide them with expertise. Individual farmers in the first year of operation were certainly at a disadvantage in discussing the terms of co-operation. They were fragmented, they knew little or nothing about the enterprise, they had no advance notice of the company's intentions and hence had no bargaining power. On the company side, it was found impossible after the experience of the first year to contact thousands of individual farmers and it was decided that it was necessary to work closely with registered farmers' associations. In Thailand, these are voluntary farmers' groups of at least 30 persons, registered with the Government and able to request assistance from government offices. The establishment of such groups creates the organization through which the Government can provide expertise.

Finally, agencies dealing with small farmers or charged with their assistance must be integrated at the local level. In the case under discussion, even where the company bargained with local farmers' associations or their regional organization[79] rather than with individual farmers, the results for the small farmer were not much improved. In practice, little assistance is available to farmers' groups from government agencies because of lack of manpower and professional staff. The responsibilities for many aspects of agriculture are scattered among and within different ministries. Co-operation is limited and co-ordination is rare. Adequate resources need to be made available to government agencies and their tasks integrated and rationalized at the local level. With adequate support, farmers' groups could develop a business-oriented membership competent enough to capitalize upon available contract marketing schemes. Concurrent with the correction of these problems, the Government could provide regulatory assistance to ensure that the private sector operated according to proper business ethics in its dealings with the farmer population.

If the above problems were overcome, contract marketing has the potential to provide a system that can operate even more to the benefit of the small farmer and the profit of the processor.

(e) *Marketing of rubber by smallholders in peninsular Malaysia*

In 1974, the rubber industry in peninsular Malaysia occupied almost two thirds of the land under agricultural crops and provided employment for one third of the economically active population. Traditionally, a smallholder's rubber farm has been one of less than 40 hectares. In practice, however, three quarters of these units are less than 4 hectares and the national average size is 2.6 hectares.

Big advances have been made in production and presentation by the rubber industry, but a major area for improvement remains the processing and marketing of smallholders' rubber. These two aspects are inseparable because, whether the present system of marketing is satisfactory or not, depends greatly on the way the smallholders' rubber is processed.

---

[79] The Northern Union of Farmers' Groups (NUFAG).

Rubber is extracted by making an incision in the trunk of the tree from which "latex" flows into a cup. After about 30-45 minutes this is collected. The "late drippings" which coagulate in the cup and along the tapping panel are collected later and are known as "scrap". Latex forms about 80 to 85 per cent of smallholders' rubber, the remainder consisting of scrap.

The present marketing system of smallholders' rubber has two components: the traditional and the improved. The first includes those small holders who process their latex separately on their own holdings, while the second includes those where the latex is processed using the improved facilities of group processing centres (GPC) or sold as latex to central processing factories.

Except for approximately 10 per cent at present sold to public central processing factories, smallholders' rubber and scrap is marketed through a chain of agencies from local dealers, middle dealers to remillers and exporters. Practically all scrap is marketed unprocessed through this traditional chain. Of the latex processed on individual holdings and at GPCs, about 75 per cent is sold to first-trade dealers as unsmoked sheet (USS) made by coagulating latex with chemical into slab, then pressing and rolling it into a thin sheet. The dealers clean and smoke the sheet before resale as ribbed smoked sheets (RSS). The remaining 25 per cent is smoked before sale through the traditional chain, usually by farmers with holdings of 5 hectares and above.

Numerous criticisms of varying degrees of accuracy have been levied about the traditional system of marketing smallholders' rubber. A few empirical studies in the late 1960s and early 1970s provide some objectivity. The most important conclusions are those drawn from an analysis of the differential in the dealers' profit component between their trading of RSS, USS and scrap.[80] Total marketing margins were calculated for each of the three products. Over half the RSS margin and over three quarters of the USS margin actually accrue to dealers at the first level, the remainder being taken up by middle dealers and exporters. For scrap, about a third accrues to the first-level dealers. A further breakdown is available at the first-dealer level between handling and processing costs and profit. Expressed as a percentage of the first trade margin, profit is 17 per cent for RSS, 42 per cent for USS and 45 per cent for scrap. A more realistic comparison is to express the profit in terms of the total marketing cost. This has been estimated at 21 per cent, 73 per cent and 91 per cent for RSS, USS and scrap respectively. As a percentage of dealers' "total investment", it has been determined at 15 per cent for the handling/purchasing of RSS and 46 per cent for USS.

In the light of the above, the marketing of smallholders' rubber is considered satisfactory as regards RSS only. The over-all marketing structure, therefore, is unsatisfactory, since the bulk of smallholders' production is marketed in the form of USS and scrap through a chain of dealers.

In order to provide further evidence on the efficiency of the market system, other factors, such as the number of dealers, the availability of credit and other facilities, the evaluation of rubber, the customer-dealer relationship and the availability of price information, require examination.

The study under review suggests that only in the case of evaluation of rubber can the situation be described as unsatisfactory for the smallholder and then mainly in connexion with USS and scrap. In purchasing, a dealer has to evaluate smallholders' rubber in terms of its moisture content, grade and weight. There is as yet no scientific technique with which RSS, USS and scrap can be accurately evaluated under practical conditions, and this is particularly important with respect to USS. Grade and moisture content are based on visual inspection. A survey of first-level dealers shows that there is great variation in the estimates of moisture content of USS. Its estimation in scrap is necessarily even more arbitrary because of the lack of uniformity in its presentation at the time of sale. The assessment is further complicated by the need to assess the quality and cleanliness. In practice, therefore, a dealer normally applies a fixed deduction for scrap produced in a certain locality or by a particular smallholder. Because of the uncertainty, it is believed that first-level dealers tend to overestimate moisture content so as to offset any subsequent losses in weight. Grading is determined by visual inspection. This is fairly accurate for RSS, but for USS and scrap it is necessarily arbitrary and the practice of downgrading is quite widespread.

It is often asserted that smallholders lose weight because of dealers' practice of "rounding down" to the nearest *kati*[81] or half *kati*. This is because the majority of dealers use large weighing scales. A practical way to overcome this is to sell in bulk or at longer intervals. The majority of smallholders producing RSS sell once a month only, but those selling USS sell either weekly or fortnightly. Scrap is usually marketed separately on a daily or alternate daily basis.

---

[80] The only studies which have investigated these matters in sufficient detail were carried out by Lim Sow Ching, "Analysis of smallholders' rubber marketing in West Malaysia", *Journal of the Rubber Research Institute of Malaya,* 21(5), 1969, pp. 604-612 and Cheam Soon Tee, *A Study of the Marketing of Smallholders' Lower Grade Rubber,* Economic Report No. 8, Rubber Research Institute of Malaya, July 1971.

[81] A local unit of weight, equivalent to about 0.6 kilograms.

It is therefore concluded that the marketing margin for USS and scrap is excessive and that the assessment of grade and moisture content is necessarily arbitrary. Some private group processing centres exist, and the Government has been encouraging the establishment of public centres. These are simple sheds with a concrete floor measuring six by twelve metres and containing coagulating pans, processing tables, mangles and other processing items. At these centres, smallholders can, for a small charge, process their latex into improved quality USS or into RSS where smoking facilities are provided.

While group processing undoubtedly contributes to the upgrading of smallholders' rubber, GPCs catered for only 4 per cent of the total production attributed to smallholders in 1974. The rubber produced is also sold through the dealers' chain and, in this sense, the centres are merely adding to the traditional marketing structure.

Parallel with group processing development has been the establishment of both public and private central processing factories. For these, latex is bought and collected from smallholders at prices that compare favourably with prices paid by the first-level dealers for smallholders' sheet rubber. The latex is processed and, in the case of public centres, is marketed directly to consumers overseas, by-passing completely the traditional marketing channel. About 16 per cent of smallholders' latex and scrap was sold in 1974 to central factories.

At present, 80 per cent of smallholders' production is still being processed traditionally and sold through a chain of dealers in the form of USS and scrap. In view of this, accelerated activities in smallholders' processing and marketing are being planned for the third Malaysian plan (1976-1980) and it is hoped that about 40 per cent of smallholders' rubber will be centrally processed by 1980.

4. *Conclusion*

As a result of our analysis of the problems of small farmer marketing we have reached three conclusions on which to base recommendations for action.

First, small farmers clearly lack technical facilities that contribute to the development of an efficient marketing system. Feeder roads are poor, information is lacking and standards are not set or enforced.

Second, it is not possible to successfully treat marketing problems separately from the farmers' other needs. Marketing cannot be divorced from a consideration of production relationships. Farmers need integrated assistance. Otherwise, they may be unable to avail themselves of improved marketing facilities because of the existence of other impediments in the agricultural system. A good example is the need for marketing credit if farmers are to be able to use storage facilities.

Third, it is not possible, on the basis of present knowledge, to reach any general conclusions about the structure of the market that faces small farmers. The traditional attitude has been that traders benefited from some degree of monopoly power. Some evidence is available to the contrary, particularly from India. The market situation varies, depending on the crop and the locality. Market structure is a question that can only be decided on the basis of detailed research of particular situations.

The following recommendations are made to assist small farmer marketing. First, a great deal can be achieved by the provision of technical facilities and the regulation of marketing practices. Inefficiencies that arise from poor transportation, storage, information systems, inadequate and poorly-serviced market centres and lack of standardization hamper any market system whether it be private, public or co-operative. The Government has a major role to play in providing improved facilities and in policing its established standards and the honesty of the dealings between farmer and trader. In some circumstances, this may best be done by the Government entering the marketing sector on a commercial basis in competition with private traders.

Second, the Government can take steps to free the small farmer from constraints in his production relationships which will open the way for him to make decisions purely on the basis of the marketing options open to him. Such action could involve, for example, the provision of credit on the basis of expected output rather than collateral, or the provision of consumption credit on the basis of storage receipts in public or co-operative storage facilities.

Third, because there are economies of scale available in marketing, the Government could encourage the development of institutions for joint action by small farmers and provide these institutions with assistance, both financial and managerial, in the early stages. But these institutions must be expected to enter the market place and to compete freely for the farmers' custom with the existing private trading system. Support might also be given to joint action by farmers in marketing arrangements, such as contract marketing. A discussion of institutional changes to overcome the problems of small farmers is contained in chapter 7 of this *Survey*.

The complexity and the entrepreneurial nature of the marketing function cannot be too strongly stressed. Because of this, the deliberate displacement of private marketing institutions with public institutions is a delicate and difficult task. It should only be undertaken where detailed objective research has shown traders to be reaping monopolistic profits at the expense of small farmers and this situation cannot be controlled by policy changes and regulation, where the Government has the required entrepreneurial resources to operate a marketing organization successfully, *or* where non-economic considerations take precedence over all economic calculations, such as during a major food shortage.

Official attitudes and policy regarding marketing are often based on unsubstantiated opinions or outdated facts. This is particularly the case in regard to the role of the private trader. An additional word is said here on this subject because it is an area where it is important for Governments to take a hard look at popular wisdom before taking action.

The marketing of agricultural produce requires management skills, innovation and the ability to take quick decisions and actions. This requires energy and independence and an intimate knowledge of the field. In countries of this region where small farmers predominate, marketing involves the collection, storage and transport of small quantities. Consumers are likewise poor and buy in small lots and can afford only minimum services. Under these circumstances, marketing, particularly at the primary level, tends to be small-scale and labour-intensive, often operated by family groups on a local scale, which follow conventional lines of business. Big changes involving radically new technology on large-scale operations will be carried out by larger enterprises which have the resources to set up their own sources of supply or integrate the marketing channels. But the small traders are nevertheless agents of change within their own environment and have the incentive and flexibility to react to changes in that environment. This may involve new and cheaper methods of transport and more extensive collection of produce with the opening up or improvement of roads. It may be the use of new equipment or improved forms of organization of storage which have been proved useful by larger firms. Or it may be the encouragement of the growth of new products, such as fruits and vegetables, as facilities for their marketing open up. Each individual improvement may be quite modest, but this kind of change is cumulative.

Government marketing organizations are rarely designed to undertake activities with the same degree of enterprise. They are not usually able to act with the independence possible of a private business and the reward system in government bureaucracy is such that it encourages cautious administration rather than change. In any case, civil servants are not usually in a position to acquire the experience that would enable them to act as executives in such situations, particularly in relation to perishable commodities where quick decisions have to be taken.

Many developing countries have given important roles to public bodies, such as marketing agencies, state processing plants and centrally-directed co-operatives, but little has yet been done to tackle the problem of selecting, training and giving scope to entrepreneurial ability within these public institutions. In the meantime, the bulk of the activities in this field is carried out by independent enterprise and, at the primary level where they are in contact with small farmers, by very small-scale enterprise. Progress will continue to depend on their efforts. However, these entrepreneurs operate within a framework created by government policy. If their contribution to development is to be maximized, Governments must create conditions conducive to investment, maintain effective competition in marketing and provide services that such small enterprises cannot provide for themselves. Part of the government activity in this field could take the form of providing training or extension programmes for small traders in management skills or exposing them to new techniques which might be adapted and used by them at the local level. Government policy must also create an environment where these marketing activities are consistent with the national welfare.

Studies have shown that, in many countries of the ESCAP region, producers traditionally distrust traders, whether they be public or private. The establishment and maintenance of farmers' confidence in the marketing system is particularly important where farmers are moving from semi-subsistence agriculture to more commercial operations. The improvement of the marketing system for the small farmer is therefore crucial to call forth increased agricultural output.

Chapter 5.

THE MOBILIZATION OF FINANCIAL RESOURCES

1. *Introduction*

Resources required by the small farmer for growth and development are provided from his savings and those of other groups or sectors. In most developing countries of the region, some part of these resources is mobilized without financial intermediation, as when unpaid farm household labour is used for land development or costs are defrayed out of savings held in kind or in cash. However, as a consequence of recent technological change in agriculture, the mobilization of a large and growing proportion of these resources requires intermediary institutions which bring together those who save and those who make use of these savings. These institutions may be classified into two markets: "the formal" and "the informal".[1] The former includes banks, co-operative societies and government departments and other public sector institutions and the latter includes village money-lenders, traders who combine trading with lending and other agents. It is the objective of this chapter to examine the working of these institutional mechanisms in mobilizing financial resources on behalf of the small farmer.

Firstly, some features of the demand for resource transfers and credit are examined. Secondly, the chapter contains information on the institutional arrangements for the supply of credit. Finally, the remainder of the chapter discusses some of the major problems and policies in establishing and operating these institutions. The main purpose of the chapter is to discuss these issues in the light of the factual situation in the developing countries in the region. To a considerable extent, the attainment of this objective has been limited by the non-availability of satisfactory information, the more so on recent developments. Moreover, when data is available it is unevenly spread among the countries of the region.

2. *The demand for credit*

Demand for credit by the farm householders is for investment purposes, to finance non-recurring expenditure, for the conversion of loans or for consumption.[2] The demand for credit for consumption in the small farm sector usually arises from temporary lack of cash and the obligations incurred are normally discharged at the conclusion of a production cycle. Demands for consumption credit may also arise because of expensive medical attention or for festive or religious activities[3] for which no adequate provision has been made from surpluses in previous cycles of production. While recourse to high interest credit for these purposes reduces the future stream of income of the farm household, this should not generate chronic indebtedness in a farm household which produces a reasonable surplus and is prudent in the husbanding of resources. However, for farm households where net income does not provide sufficient resources to provide normal current consumption year after year, credit from whatever source clearly cannot provide a satisfactory solution. An exception may be where the low farm income results from the payment of abnormally high interest rates and the surplus is substantially appropriated to meeting unsatisfactory schedules for the repayment of debt.

Credit requirements for refinancing and production purposes by small farmers will be for varying lengths of time, depending upon how they deploy their own resources and the organization of productive activity. For example, the supply of irrigation may be financed by a medium-term loan for the purchase and installation of pumping equipment or by a short-term loan to pay for the water supplied from outside the farm enterprise. The headworks of an irrigation system or the sinking of a tubewell may be undertaken entirely independently of the farm enterprise. Consequently, the long-term credit requirements would have been satisfied in the "irrigation sector" and the demand from the small farmer would be for short-term credit for the purchase of water. An analogous situation would exist with regard to the use of farm equipment, such as tractors, sprayers and dusters. Consequently, the demand for and the supply of long-term and medium-term credit to finance some of the activities in the small farm sector may, in fact, appear in another sector. To this extent, the discussion that follows may, in some degree, understate the problems in the supply of credit to service the activities of the small farmer.

---

[1] For an instructive use of these terms and their definitions, see ILO, ***Employment, Incomes and Equality, Kenya*** (Geneva, 1972), pp. 5 and 6.

[2] In practice, it is difficult to separate consumption and production expenditures because the earnings of family labour which finance consumption in the household would appear in other forms of productive activity as wages payable by the enterprise and thus fall into the category of production credit where it belongs.

[3] For example, the "carnival fiesta", in some parts of the Philippines: see G. T. Castillo, "Sociological factors in savings and capital accumulation in Philippine agriculture", ***Philippine Economic Journal***, vol. III:2, 1964, pp. 189-207.

(a) *The increasing demand for credit*

In a period of rapid advances in technology, the demand for loans by the small farm sector will tend to increase. The adoption of the recent improvements in the techniques of cultivation requires the availability of satisfactory irrigation and drainage facilities, immediately raising the need for resources, a good part of which, in the case of small farmers, will manifest itself in a demand for credit. In many crops, the new seed varieties themselves may raise the volume of inputs bought from outside in comparison with the situation earlier, as when a farmer cannot replace the seed material from his own crop which has been cross-bred with seed of inferior yield potential from neighbours' fields. With the new seed materials would go a demand for chemical fertilizers and pesticides, forming by far the largest proportion of the new resource requirements. Equipment for the application of some of the chemicals generates a demand for financial resources for their purchase or for their hire during each cycle of production. The larger inputs of labour consequent upon increased activity increase the demand for advances for the payment of wages. To the extent that machines are substituted for such labour, the demand for resources will be for the purchase or hire of the machines. In grain production, with the introduction of controlled irrigation and short-duration and photo-period insensitive varieties, there is often a tendency to double or triple cropping. This necessitates the use of equipment to shorten the periods of land preparation and harvesting, thus generating a new need for financial resources for its purchase or hire. Where cropping seasons closely follow one another, resources will tend to be locked up in the unsold previous crop and in the cultivation of the current crop.

An estimate of the larger resources use in the Hazara district of Pakistan is shown in table 27 for purposes of illustration. The increase in cash outlay consequent on the adoption of some of the new techniques in the cultivation of rice at Bangkaen, Thailand, in 1967 is reported to have been eightfold (from $US 16 to $US 125) and in the Philippines even higher.[4] In an inquiry undertaken by the Rastra Bank of Nepal, estimates have been made on several assumptions of the credit needs for each farm size that would result from the adoption of recent improvements in cultivation.[5] These estimates show very clearly that the small farmers tend to depend on credit to finance a greater proportion of these outlays than do the larger farmers.

Table 27. THE AVERAGE INPUTS AND YIELDS PER ACRE FOR DWARF AND NATIVE VARIETIES OF WHEAT IN HAZARA DISTRICT, PAKISTAN, 1969/70

Input	*Native variety*	*Dwarf variety*
Man hours	68.4	166.8
Seed (seers)	32.2	36.5
Nitrogen (lb)	6.0	40.7
Phosphates (lb)	8.3	28.7
Yield (lb)	699.0	1,367.0

Source: Refugio I. Rochin, "A micro-economic analysis of small holder response to high yielding varieties of wheat in West Pakistan", in AID, *Spring Review of Small Farmer Credit* (Washington D.C., 1973), vol. XIV, p. 80.

(b) *Savings of small farmers*

The savings that small farmers can mobilize for themselves are determined primarily by their current income. In gauging the extent of these surpluses, data from household surveys of income and expenditure suffer from severe limitations because, in general, incomes tend to be understated whilst expenditures are stretched in the opposite direction.[6] In the absence of satisfactory quantitative information, there are substantially different views regarding the capacity of the small farmer to save. On the one hand, there are such observations as: "So poor is the Filipino farmer that he regards farming largely as a means of surviving from season to season and very often as a vantage point for borrowing not so much for production inputs as for his family's living necessities."[7] and "The average size of a farm in Korea is so small and the savings of farmers so insufficient that the majority of farmers are in constant need of credit."[8] These estimates do not take account of such spare labour time as may be available in farm households and can be converted into capital, given appropriate institutions and effective organization.

---

[4] Shigeru Ishikawa, *Agricultural Development Strategies in Asia* (Manila, Asian Development Bank, 1970), p. 34.

[5] See Nepal Rastra Bank, *Agricultural Credit Survey*, 1972, vol. IV, pp. 18-19.

[6] ". . . income data would be grossly understated, especially by the lower income groups. The incidence of debt among the lower income groups was very high. But still this was inadequate to explain the high consumption expenditures reported by them." Central Bank of Ceylon, *Survey of Defaults in the Repayment of New Agricultural Loans*, 1972, p. 13.

[7] Solomon G. Cabrera, "Recovery problems in the Philippines" in International Co-operative Alliance, *Agricultural Co-operative Credit in South East Asia* (London, Asia Publishing House, 1967), p. 137. Cabrera was a senior official in the Agricultural Credit Administration of the Philippine Government. This is further confirmed by studies conducted by the University of Philippines in its farm record keeping project, where it was recorded that 73 per cent of the farms subjected to interview borrowed for farm or family expenses. For supporting evidence also see O. J. Sacay, "An analysis of the crop loan programme of the Agricultural Co-operative Credit and Finance Administration", unpublished Ph.D. thesis, 1967, and G. T. Castillo and J. F. Pua, "Research notes on the contemporary family: findings in a Tagalog area", *Philippine Journal of Home Economics*, XIV:3, 1963.

On the other hand, in some instances, farmers, including those operating on a small scale, are found to have financed the preponderant part of their activities with their own funds. Table 28 indicates that, with two exceptions, more than 50 per cent of all capital expenditure of small farmers in areas investigated in India was financed from their own funds. "A recent study in India reported that one-half of the farm households did not have any debt at all. Farmers that did borrow still financed 95 per cent of household expenditure, 90 per cent of operating outlays and 50 per cent of investment costs out of their own resources."[9] Some studies by the Reserve Bank of India in selected villages indicated that, even among those participating in intensive agricultural development programmes, "own funds" was the main source of finance.[10] In Sri Lanka in 1968/69, among rural households whose primary source of income was agriculture, 40 per cent were not in debt at all.[11]

The evidence in respect of India and Sri Lanka, which covers periods when the new technology was being progressively adopted, poses some difficult questions, the principal one being whether there has been a misplacement of emphasis on credit as a critical bottleneck to the adoption of the new technology. In a period of such change, the large-scale farmers tend to adopt new techniques faster than the small-scale farmers.[12] Given the further characteristic that the most common immediate source of credit is local,[13] there probably does arise a dearth of resources for the small farmer exactly when he needs them. Thus, one might well conclude that while there has been some over-statement of the importance of credit in the life of the average small-scale farmer, the scarcity of resources from this source and the high cost of borrowing do hold back the adoption of new and more remunerative techniques of production. In five provinces in the Philippines in 1966/67, the Bureau of Agricultural Economics found "no cash outlay" listed as the reason by 38 per cent of those who did not use fertilizer.[14] Finally, the figures with respect to India and Sri Lanka describe an *ex post* situation which is not incompatible with a desire on the part of small-scale farmers to borrow for productive purposes or with the inadequacy of existing institutional arrangements to lend to them.

Table 28. SOURCES OF FINANCE FOR CAPITAL EXPENDITURE (IN CASH) IN AGRICULTURE REPORTED BY SMALL FARMS, SELECTED DISTRICTS, INDIA[a]

(in percentages)

District	*Own funds*	*Loans*
Amritsar	54.5	45.5
Balasore	79.0	21.0
Faizabad	55.2	44.8
Jamnagar	26.6	73.4
Jodhpur	58.1	41.9
Khamman	43.7	56.3
Purnea	82.2	17.8
Sholapur	55.5	44.5
South Kanara	62.5	37.5
Turunaveli	75.0	25.0
West Dinajpur	83.1	16.9
West Nimar	27.1	72.9

Source: Reserve Bank of India, *The Small Farmer (1967-1969)*, 1975, p. 141.

[a] Averages for 1967/68.

The low incomes which account for their low surpluses are explained in the first place by the fact that their holdings do not yield a sufficiently high income at the present levels of productivity. The low gross outputs may be further reduced by the high payment for inputs — irrigation, tractor services, high-quality seed, fertilizer and other chemicals. These inputs may be higher priced for the small farmer because he buys in small quantities and to all farmers because of poor facilities for transport and storage in the rural areas, the high costs of which are passed on by the trader to the farmer. The net farm income thus reduced, in its appropriation, will be still less to the small farmer because of extremely high payments in obtaining credit and for land rent.

The cost of credit is high, in part, because capital is scarce. The highly remunerative opportunities for investment — in industry and services and vastly expanded in agriculture — have tended to push the demand for capital further. It would be especially high to the small farmer, because he lives at a substantial distance from the sources of credit, the loans are in small quantities,[15] he cannot, in general, provide collateral security and the risk of default is high.[16] Some of their loans are to meet emergency needs for finance, and there may be little room for bargaining by the borrower. At the same time, it would be incorrect to imagine that "usurious" payments for capital is the universal phenomenon in the rural sectors of the developing countries of the region. In India, of all loans to cultivating households in 1961/62, 25 per cent were reported to be free of interest and nearly 50 per cent on less than 10 per cent per annum.[17] Some studies in Sri Lanka indicate that nearly 50 per cent of loans made from "informal" sources were interest-free.[18] There is also evidence to indicate that these favourable terms were not denied to the less wealthy farmers, including tenants.[19] However, a word of caution is necessary: the low and zero rates of interest to a considerable extent conceal charges in the form of low prices for produce sold in repayment or service obligations at wages lower than those prevalent.[20]

---

[8] National Agricultural Co-operative Federation, *Rural Credit Survey of Korea* (Seoul, presumably 1965), p. 29.

[9] IBRD, *Agriculture Credit*, 1974, p. 22. Also see Reserve Bank of India, *Report of the All India Rural Credit Review Committee*, 1969, p. 46.

[10] Reserve Bank of India, *All India Rural Credit Review Committee*, *op. cit.*, p. 74.

[11] Central Bank of Ceylon, *Report of the Survey of Rural Credit and Indebtedness*, 1969, pp. 8 and 59.

[12] See above, chapter 3.

[13] See *infra*, p. 258.

[14] Shigeru Ishikawa, *op. cit.*, p. 36.

In the developing countries of the ESCAP region, land rents tend to be high because of the high man/land ratios together with the scarcity of alternative employment opportunities. The small-scale farmer who is a tenant, and has for long paid high scarcity rents, has now begun to face a higher reserve price for the use of arable land because, with the recent innovations in agriculture, the potential yield of land to the owner has increased manifold. Landlords have successfully appropriated a part of the increased output resulting from the adoption of the new technology by their tenants. Where small-scale tenant farmers cannot husband the resources to exploit these opportunities, the yields have not increased in the same manner and the repayment of the higher rates has been a severe burden on them. The series of "resumption of tenancies" in India exemplifies this phenomenon clearly.

A further reason adduced for the low level of farm income and the need to resort to credit is "the seasonal nature of the farm economy."[21] When the small-scale farmer sells immediately after harvest, he is likely to receive the lowest prices in the year for his product. He may be forced to do this by the need to liquidate his debts, and in order to avoid losses that result from extremely poor storage facilities, the provision of which is not without cost.

3. *The supply of credit: sources of credit*

In the developing countries of the region, except the Philippines, as shown in table 29, the most common sources of credit are relatives, friends and money-lenders who themselves are often large-scale farmers. In all countries for which there are data, except the Philippines, more than 50 per cent of all loans were obtained from these two categories of lenders. Money-lenders are particularly important in India, Nepal and the Republic of Korea; friends and relatives in Thailand and Sri Lanka. Immediately following these two categories are merchants who are crop buyers, commission agents or local shopkeepers. Co-operative societies are substantially important lenders to the farming sector in India and the Republic of Korea. Government departments and agencies constitute a considerable source of funds in Nepal and Sri Lanka. To a certain extent, the distinction between co-operative societies and government departments and agencies is contrived, particularly so where the co-operative societies function as conduits for government funds and otherwise serve as an extended arm of the Government. Except in the Philippines, banks do not constitute a substantial source of loans to the farming sector. Traditional credit associations, common to virtually all countries in the region, do not figure as an important source of credit. It is probably subsumed in the category "other" in some of the countries, as traditional credit associations have not been viewed as a potentially significant unit in the institutional framework for credit to the farmer in any of the countries of the region.

At this point, it is worth noting that the rural sector as a whole, whatever the segment of economic activity, seems to depend, in large measure, on the non-formal market for credit. The information in table 30 refers to Sri Lanka and brings out this point rather well.

It will be recalled that the information in table 29 is concerned with the sources of borrowing by farm families, in general. The distribution of sources

---

[15] See, for example, the following information in Pantum Thisyamondol, *et al., Agricultural Credit in Northeast Thailand* (Kasetsart University), p. 33:

Size of debt	*Rate of "interest"*
Less than 500 baht	75 per cent
500 – 1,000 baht	27 per cent
More than 10,000 baht	14 per cent

Also see Anthony Bottomley, *Factor Pricing and Economic Growth in Underdeveloped Rural Areas* (London, Crosby Lockwood and Sons, Ltd., 1970), pp. 90-99.

[16] See *infra*, p. 264.

[17] Reserve Bank of India, *Report of the All India Rural Credit Review Committee, op. cit.*, p. 18.

[18] See Agrarian Research and Training Institute, *The Agrarian Situation Relating to Paddy Cultivation in Five Selected Districts of Sri Lanka* (Colombo, 1974), part 2, p. 53, part 3, p. 45.

[19] See Ashok Rudra, "Loans as a part of agrarian relations", *Economic and Political Weekly*, 12 July 1975, pp. 1,049–1,053.

[20] See Ace Partadireja, Rural credit: the ijon system, *Bulletin of Indonesian Economic Studies*, vol. X:3, p. 67. "Indeed one of the most interesting features of all ijon transactions is that they are cast in a form which avoids the appearance of interest . . . . "

[21] See National Council of Applied Economic Research, *Effectiveness of Co-operative Credit for Agricultural Production* (New Delhi, 1972), pp. 146, *et seq.*

Table 29. THE PERCENTAGE DISTRIBUTION OF LOANS/DEBT BY SOURCE OF BORROWING, SELECTED COUNTRIES, ESCAP REGION

	India (1970/71)[a]	*Nepal (1969/70)*[b]	*Philippines (1960/61)*[c]	*Rep.of Korea (1964)*[d]	*Sri Lanka (1970)*[e]	*Thailand (1965)*
Relatives and friends . . .	18.8	32.5	17.7	19.6	28.8	47.0
Money-lenders	49.6	37.4	2.2	43.2[f]	26.0	5.4
Merchants		2.9	17.4	4.2	15.8	25.1[g]
Landlords	1.3[h]	5.2	14.6	—	0.7	2.1
Government	3.6	13.9[i]	9.1	4.5	8.9	0.4
Co-operative societies . . .	22.7	1.4	1.4	24.2	3.5	7.5
Banks	4.0	5.5[j]	26.4[k]	1.0	6.7	—
Others	—	1.2	10.9	3.3	9.6	3.9

Sources: India: National Council of Applied Economic Research, *Credit Requirements for Agriculture,* New Delhi, 1974, p. 80; *Nepal:* Nepal Rastra Bank, *Agricultural Credit Survey Report,* Kathmandu, 1972, vol. IV, p. 151; *Philippines:* Shigeru Ishikawa, *Agricultural Development Strategies in Asia,* Manila, 1970, p. 44; *Reublic of Korea:* National Agricultural Co-operative Federation, *Rural Credit Survey in Korea,* Seoul, (no date), p. 162; *Sri Lanka:* Central Bank of Ceylon, *Survey of Rural Indebtedness,* Colombo, 1972; *Thailand:* Yuavares Kaesuwan, "Agricultural credit versus welfare needs of Thai farmers", Master of Economics thesis, Thammasat University, June 1973, p. 10. Also see a report on "Agricultural credit, co-operative organization, management and administration and agricultural marketing", made to the Government of Thailand and USOM, Thailand, (mimeo.), 1969.

[a] Cultivator families.

[b] Farm families.

[c] Loans taken by farm households between May 1960 and April 1961.

[d] These are the sources of borrowing by farm households and refer to debt outstanding on 31 July 1964.

[e] Rural families.

[f] Farmers 41.9, other lenders 1.3.

[g] Crop buyers 8.6 and local store 16.5.

[h] Includes landlords and other sources.

[i] Ward/village committees 7.8, Agricultural Reform Savings Co-operation 6.1.

[j] Commercial banks 3.2, Agricultural Development Bank 2.3.

[k] Rural banks 8.3, commercial banks 18.4.

of credit for the small farmer is somewhat different. There are no comparable systematic data in respect of small farmers for the vast majority of the countries of the region. At times the information is country-wide, at others it refers to a district or several villages in a district and thus does not adequately represent the situation for the country as a whole and, in some cases, it is only impressionistic. Such information as could be conveniently tabulated is presented in table 31.

Table 30. SOURCES OF CREDIT,[a] RURAL HOUSEHOLDS CLASSIFIED BY "ECONOMIC ACTIVITY", SRI LANKA, 1969
(in percentages)

	Co-operative societies	*Other institutional sources*	*Non-institutional sources*
Agriculture . . .	5.74	28.08	66.18
Cottage industry . .	1.74	20.26	78.00
Other industry . .	1.60	17.13	81.27
Trade	1.52	19.47	79.01
Other services . .	1.64	36.56	61.80
Employees . . .	3.72	17.35	78.93
Other	3.19	19.96	76.85

Source: Central Bank of Ceylon, *Report of the Survey of Rural Credit and Indebtedness,* 1969.

[a] Debt outstanding at the time of the survey.

(a) *The informal markets for credit*

The first point that emerges is that small farmers, even more than rural people as a whole, tend to depend more on non-formal sources of credit: in India, 22.1 per cent of the loans received by small farmers were from relatives, friends, money-lenders and merchants in contrast to 7.4 per cent in the case of large farmers; the corresponding percentages in Nepal are 89.1 and 51.2; and in the Punjab, Pakistan, 82.4 and 54.1 (Khanewal tehsil) and 100 and 61.1 (Sahiwal district). That a somewhat similar tendency occurred in the Republic of Korea is indicated in a report prepared by that country's National Agricultural Co-operative Federation.[22] In Bangladesh, few farmers hold more than three acres and yet these larger farmers captured more than 80 per cent of the loans from the Agricultural Bank and co-operative societies. In Pakistan, the smaller 60 per cent of the farmers got 3 per cent of institutional credit. In the Philippines, the larger farmers who operated 61 per cent of the land captured 98 per cent of the institutional credit. In Thailand, those receiving institutional credit held, on the average, 60 per cent more land than the

---

[22] National Agricultural Co-operative Federation, *op. cit.,* p. 40.

Table 31. THE PERCENTAGE DISTRIBUTION OF SOURCES OF CREDIT FOR LARGE AND SMALL FARMERS IN SELECTED ESCAP COUNTRIES

	Nepal (1969/70)		*India (1970/71)*[a]		*Khanewal tehsil, Pakistan (1969/70)*		*Sahiwal district, Pakistan (1970/71)*	
	Large[b] *farmers*	*Small*[c] *farmers*	*Large*[d] *farmers*	*Small*[e] *farmers*	*Large*[f] *farmers*	*Small*[g] *farmers*	*Large*[h] *farmers*	*Small*[i] *farmers*
Relatives and friends	15.0	37.9	0.3	1.3	51.7	75.9	53.7	93.0
Money-lenders	26.0	44.2	7.1 {	19.8 {	2.3 {	6.5 {	1.9	3.1
Merchants	2.3	2.9					2.9	3.6
Landlords	7.9	4.1	—	—	—	—	2.6	0.3
Government	32.1	6.5	4.6	15.6	...	...	1.6	—
Co-operative societies	3.5	0.8	85.5	59.1	36.8 {	1.6 {	11.1	—
Banks	13.2	1.6	2.2	4.2			26.2	—
Other	—	2.0	0.3[j]	—	19.3	16.2	...	...

Sources: Nepal: Nepal Rastra Bank, *op. cit.*, p. 154.
India: National Council of Applied Economic Research, *Credit Requirements for Agriculture*, New Delhi, pp. 86-87.
Khanewal tehsil, Pakistan: Max Kearns, Lowdermilk, "Diffusion of dwarf wheat production technology in Pakistan's Punjab", in AID, *Spring Review of Small Farmer Credit*, Washington D.C., 1973, vol. XIV, p. 273.
Sahiwal district, Pakistan: Muhammad Naseem, "Field survey of small farmers in Sahiwal district", in AID, *op. cit.*

[a] Credit for operational expenses.
[b] In extent > 1.02 hectares in the Hills and 5.42 hectares in the Tarai.
[c] In extent 0.05 to 0.51 hectares in the Hills and 0.05 2.71 hectares in the Tarai.
[d] In extent > 6 hectares.
[e] In extent < 2 hectares.
[f] In extent over 50 acres.
[g] In extent 2.5 acres to 7.5 acres.
[h] In extent 12.5 to 25 acres.
[i] In extent < 12.5 acres.
[j] Includes landlords.

average farmer.[23] In Malaysia in 1965/66, in two states, two-thirds of all credit to small farms came from provision shops, one-fourth from relatives, pawnshops, other traders and friends. Co-operative societies and the Government provided no more than one-twelfth.[24]

For the small farmer, as shown in table 31, the major source of credit is the informal market. The sellers here include friends, relatives, traders, money-lenders, landlords, and groupings of small-scale farmers themselves in "rotating credit societies".[25] The wares in the market tend to be concentrated on short-term credit with a dearth of medium-term and long-term credit. Short-term credit is, in general, available to satisfy most needs of the small farmer, including the financing of consumption as well as marriage and death ceremonies, major illness and litigation. Although there is a large number of sellers and buyers, they tend to function in a series of fragmented markets rather than in a competitive market.[26] The lenders in these markets have an intimate knowledge of their clientele, do not encumber themselves with heavy procedures, frequently combine lending with marketing the produce of the borrower, and generally ensure repayment. However, in some circumstances the need to ensure eventual repayment may oblige the lender to be lax about the schedule of repayment, in order to induce the borrower to sell his produce to the lender, on which the latter makes a substantial profit.[27] These "market relationships" are almost invariably intricately interwoven with other economic, social and personal relationships, often so closely as to form one seamless fabric. The cost of credit in the informal market tends to be high and higher than in the formal markets, as shown in table 32, and discussed in section 2 above.

There is a deep divergence of views regarding the role of these informal agencies. On the one hand, there is the virtually unreserved denunciation of these sources of credit: "... the private agencies satisfy few of the criteria of a good system of credit. In the first place their loans are not related to production purposes and neither in duration nor in rate of interest have they any connexion with the particular operation for which they are borrowed. Such loans are often in the nature of facile credit for wasteful items of expenditure. Beyond the merits of flexibility and ready availability, the money-lender's credit has nothing to commend it and, in fact, a great deal to condemn it ... steps should be accelerated to replace the money-lenders and other private agencies in the field by institutional arrangements."[28] In one of the agricultural credit studies in Thailand, credit from such sources is seen more as "a technique for establishing a marketing obligation".[29] On the other hand, there is, for example, the attempt in the Muda Valley Irrigation Scheme in Malaysia as well as by the Malaysia Agricultural Bank to use private traders and millers as local credit centres, in preference to co-operative societies. Much of the support for this alternative policy instrument derives from the weaknesses of Governments and co-operatives as retailers in credit and the incapacity hitherto of commercial banks to reach domestic agriculture in general and the small farmer in particular.[30] However, one needs to bear in mind that such an intermediary in rural areas would have immense economic power over a weak group of the populace, wielding far more power than the "shroffs" once did as intermediaries between expatriate commercial banks and the indigenous entrepreneurs in most parts of south Asia.

---

[23] IBRD, *op. cit.*, p. 19. In respect of the Philippines also see ILO, *Sharing in Development* (Geneva, 1974), pp. 94, *et seq.* and pp. 235-236.

[24] Leon King Wai and Robert G. Hoover, "Short term paddi production credit scheme in the Muda irrigation project area of Malaysia" in AID, *Spring Review of Small Farmer Credit*, *op. cit.*, p. 1.

[25] These institutions are discussed from many points of view, e.g. Clifford Geertz, "The rotating credit associations: a 'middle rung' in development", *Economic Development and Cultural Change*, vol. X:3, April 1962, pp. 241-63 and Ace Partadireja, *op. cit.*, pp. 54-71; Robert T. Anderson, "Rotating credit associations in India", *Economic Develoment and Cultural Change*, vol. XIV:3, 1966, pp. 334-9; Yoshio Hoyndon, "Sources of funds for agricultural co-operative in Japan" in International Co-operation Alliance, *Agricultural Co-operative Credit in South-East Asia*, *op. cit.*, pp. 182, *et seq.* Robert B. Morrow and Paul E. White, "Farmer Credit in Korea" in AID, *Spring Review of Small Farmer Credit*, *op. cit.*, pp. 13-14.

[26] See Barbara E. Ward, "Cash or credit crops?" in ed. Jack M. Potter, *et al.*, *Peasant Society, A Reader*, 1967, for an analysis of the reasons for this phenomenon.

[27] See Tom Harrison, *The Malays of South-West Sarawak before Malaysia*, 1970, pp. 202-204.

The high dependence of the small-scale farmer on the informal market for credit is the cumulative effect of two sets of forces at work in the rural areas: the strength of communal ties among relatives, friends and neighbours and the lack of access to the formal market for credit by the small farmer. In many instances, there is a clear direct price advantage in borrowing from institutional sources, as may be seen in table 32. For all countries for which there are data, the differential is substantial. This direct price advantage is modified, often to the point of nullification, by incidental costs. There are other socio-economic factors that tend to keep the small farmer out of the reach of these institutions.

Table 32. INTEREST RATES (CORRECTED FOR INFLATION) TO FARMERS BY SOURCE OF CREDIT[a]

(in percentages per annum)

	Institutional sources	*Others lenders*
India	0	15
Indonesia	3	28
Iran	5	—
Malaysia	16	58
Pakistan	4	27
Philippines	6	22
Republic of Korea	5	49
Republic of South Viet-Nam	2	20
Sri Lanka	6	44
Thailand	9	28

Source: IBRD, *op. cit.*, annex table 9.
Note: Institutional and other sources correspond roughly to the formal and the informal markets.
[a] These interest rates refer, presumably, to recent years.

(b) *Access to the formal markets*

Among the factors that keep the small farmer from gaining access to the commercial banks and co-operative societies is the almost universal requirement for collateral security in making loans. As land is the most common form of asset held by the small farmer, one would expect it to be a commonly used form of security to obtain credit. However, this is not so in most countries of the region for several reasons.[31] First, farmers who are tenants and whose tenancy rests on an oral agreement with the landlord, e.g. *verompattomdars* in some parts of India, would be put beyond the reach of credit from these sources. Even when title is in documentary form, claim to ownership may lack clarity and require costly legal processes for the preparation of the documents. In some instances, the market for land, in the event of foreclosure, may not open up, because it runs against the prevalent code of conduct to purchase such lands.[32] Consequently, it may be not possible to satisfy the conditions laid down by these lenders or too costly to do so, so that the cost advantage may now rest with the non-institutional lender, despite his higher 'interest' charge. These conditions prevail in most parts of the ESCAP region. In Iran, the small farmers who came into the possession of land as a result of the land reforms in the 1960s do not yet have title deeds to their land because the payments for the land have not yet been completed. In Sri Lanka, there is a registration of title deeds but not of titles. To trace the course of distribution of ownership is a substantially costly operation and may end up in conflicting deeds and a resolution of the conflicting claims can be a costly and time-consuming legal process. In some parts of India, such as Telangana and Andra Pradesh, the land may be encumbered in such fashion that it cannot be sold without the permission of the revenue authorities.[33] Some categories of farmers, whether small or large, may suffer from inequities imposed by law, as in the State of Bihar where farmers in "scheduled castes, scheduled tribes and backward classes . . . cannot execute a simple mortgage even in favour of a co-operative institution".[34]

---

[28] Reserve Bank of India, *Financing of Agriculture by Commercial Banks*, *op. cit.*, p. 55.

[29] Pantum Thisyamondol, *op. cit.*, p. 13.

[30] For a discussion of some of these points of view, see Clifton, R. Barton, "Credit and the small farmer, a case study of the Mekong delta, South Viet-Nam", in AID, *Spring Review of Small Farmer Credit*, *op. cit.*, pp. 27, *et seq.* and Edward S. Shaw, *Financial Deepening in Economic Development* (New York, Oxford University Press, 1973).

[31] This phenomenon may also affect the informal market under certain circumstances. For example, in southwest Sarawak, Chinese money-lenders cannot legally come into possession of the land owned by the Malay borrowers. See Tom Harrison, *op. cit.*, p. 203.

[32] Anthony Bottomley, *op. cit.*, pp. 102-103.

Unlike in the informal market, e.g. the *ijon* system in Indonesia, institutions in the formal market for credit have not in most instances accepted standing crops as collateral. To accept these or the harvested crop as collateral security for small farmers, there would need to be a scheme of crop insurance, a close link between the supply of credit and the marketing of produce, and adequate warehousing facilities. A crop insurance scheme covering paddy, that was begun in Sri Lanka on a limited scale in 1958,[35] has been progressively extended to cover the whole country. There have been several problems in determining the size of the premium and more persistently in enforcing its collection. Crop insurance could not only help the small farmer to gain access to the formal market for credit but also be of use in inducing cultivators, in general, to experiment with the innovations in agricultural technology.

Commercial banks and co-operative societies may not be available to service the small farmer because of their high cost of operation. Each loan to a small farmer is only a small sum, but it requires roughly the same costs of processing as the loan of a large sum. The scale of operations for each branch bank or co-operative society is so small that the maintenance of the minimum necessary staff constitutes a fixed cost distributed over too small a volume of credit and, given the wage scales in the banking sector, this results in very high costs. For example, the Bank Rakyat Indonesia maintains one credit examiner, a cashier and a book-keeper at each of its 219 branches in district towns and finds the costs of operation very high.[36] In India in 1966/67, out of 179,000 co-operative societies, only 27,000 had a full-time secretary.[37] Consequently, commercial banks have withheld their services from these costly operations; the co-operative societies have sought the honorary services of persons in each locality and their employees are generally "low paid and non-professional'.'[38]

Another factor which effectively keeps the small farmer away from formal sources of credit and also deprives him of the opportunity to exploit the potential yield from recent technological innovations is the very scale of his operations. It has been demonstrated in chapter 3 above that, without the judicious use of assured irrigation supplies, not much use can be made of the high-yield potential of the new seed varieties and the associated fertilizer inputs. Where irrigation services are not provided from a major source, which is often devised by the State, or sold by an entrepreneur from a minor source, such as a tubewell, the size of the operational holding of a small farmer may not permit the economies of scale necessary to install a tubewell. Moreover, the land owned by small peasants is not large enough to provide sufficient security against which funds can be borrowed over the medium term to finance an investment such as a tubewell. In addition, the market value of such land may be depressed in the absence of adequate access roads. Consequently, small farmers are often not in a position to make profitable use of the short-term credit which is available even without collateral security.

(c) *Commercial banks*

Among the factors that tend to nullify the direct cost advantage in borrowing from commercial banks, one of the most important is the thin spread of their facilities over the country. Commercial banks in the ESCAP region are city-centred institutions, with their portfolio of assets heavily weighted by bills of exchange and advances to trade and industry. Some information demonstrating the last characteristic is shown in table 33. Among some 564,000 villages in India, only 5,000 were served by commercial banks in 1969.[39] Despite an "unparalleled geographic expansion in banking operations,"[40] there were only 6,175 rural banking centres at the end of June 1974. Similarly, in Indonesia, the Bank Rakyat Indonesia has a branch in almost every district capital, which can be 10-40 kilometres from a village inaccessible by motor transport.[41] In the Republic of South Viet-Nam in 1971, the Agricultural Development Bank had 47 branches, all in provincial cities.[42] The distances to be covered entail costs to the farmer for both transport and sojourn in urban centres as well as output foregone, as the person who seeks credit is likely to be the head of the household who organizes the main productive activities.

---

[33] See V. M. Jakhade, "Small farmers and co-operative credit" in *Seminar on Problems of Small Farmer* (Bombay, Indian Society of Agricultural Economics, 1968), p. 94. Also see K. C. Cheriyan, "Loaning policies in India" in International Co-operative Alliance, *op. cit.*, pp. 121, *et seq.*

[34] National Council of Applied Economic Research, *Effectiveness of Co-operative Credit . . . , op. cit.*, p. 168.

[35] For some account of the experience, see Nimal Sanderatne, "An evaluation of credit and insurance schemes for paddy", *Journal of the National Agricultural Society of Ceylon*, vol. 6, pp. 74, *et seq.*

[36] Abodoer Rachman, "Rural credit in Indonesia, the Bimas programme", in AID, *Spring Review of Small Farmer Credit, op. cit.*, p. 4.

[37] Reserve Bank of India, *Report of the All-India Rural Credit Review Committee, op. cit.*, p. 160.

[38] *Ibid.*, p. 186.

[39] V. V. Bhatt, "Lead banks: action oriented aproach", *Economic and Political Weekly*, 3 October 1970, quoting a report by the Ministry of Finance.

[40] Reserve Bank of India, *Annual report and trend and progress of banking in India*, 1973/74, p. 38.

In addition, the nature of commercial banks as urban-based institutions tends to make them formidable and impressive places, unusual to the simple habits of a small-scale rural farmer. "Bank employees are part of the government bureaucracy and more or less urban oriented as expressed in their behaviour, manner of dress and attitudes. Farmers and tenants . . . behave differently, dress differently and have different attitudes".[43] For these several reasons, commercial banks have not been a successful means of bringing credit to the small farmer.

Table 33. DISTRIBUTION OF COMMERCIAL BANK CREDIT BY ECONOMIC ACTIVITY

(in percentages)

	Agricultural and allied activities	*Industry*	*Trade*	*Other*
India . . . . . . (June 1973)	7.2	55.1	18.8	18.9
Philippines . . . (Jan.–Sept. 1974)	5.8	27.9	46.6	19.9
Sri Lanka . . . (December 1974)	12.4	25.7	47.0	14.9

Sources: Reserve Bank of India, *Report on Currency and Finance 1973-1974*, p. 114. Central Bank of the Philippines, *Twenty-sixth Annual Report*, p. 13. Central Bank of Ceylon, *Annual Report*, 1974, table (E) 10.

The rural banks which have functioned in the Philippines for some time and which also have been suggested as a suitable instrument to service the small-scale farmer in the Republic of South Viet-Nam,[44] do not seem to have functioned markedly more satisfactorily than the commercial banks. Rural banks in the Philippines are institutions in the private sector, with working capital obtained, in part, from the Government at lower rates of interest than in the rest of the market. They also receive other benefits from the Government and government agencies. Rural banks were organized to lend to farmers who do not own more than 50 hectares — a somewhat large scale, judged by the criteria for "small farms" in the rest of the Asia and Pacific region. Although there are no statistical data to go by, it does appear that rural banks do not serve the small farmer particularly well.[45] In Central Luzon, it was observed in 1969 that "among those who were playing an active role in the working of the mechanism were wealthier local people like doctors, lawyers, retired officials, landlords, jewellers and other merchants".[46] It was further confirmed in 1971 that each rural bank was owned by a few families.[47] The consequences of this pattern of ownership, organization and management are that rural banks would not have lent on any substantial scale to the smaller farmer. In fact, an inquiry in Nueva Ecija is reported to have brought out that rural banks lend mostly to owners and part-owners and less frequently to lessees or share-cropping tenants.[48]

The most striking innovation during the last decade has been the attempt to use commercial banks in extending credits to the rural sector, including the small farmer. To some degree, this has happened for quite some time, in so far as rural money-lenders had access (through several intermediaries) to the money markets in the larger cities.[49]

But the new departure features an attempt to make commercial bank credit directly available to the small farmer and the rest of the rural community. Towards this end, the Governments of India, Pakistan and Sri Lanka have used their control over the state-owned banks which together dominate the money markets in each country. The Government of India acquired ownership of the largest commercial bank, the Imperial Bank of India, with special obligations to open new branches, and subsequently, in 1969, took over the 14 largest domestically-owned commercial banks. The Government of Pakistan acquired the four largest commercial banks in the country in 1973. The State Bank of Pakistan requires commercial banks to open a stipulated number of branches in rural areas before they are allowed to open one in a city.[50] In Thailand in 1975, commercial banks were required to lend to the farm sector at least 5 per cent of their total lending capacity.[51] In Sri Lanka, the Government established a commercial bank afresh in 1958 and in 1962 acquired the Bank of Ceylon, the two banks together owning 85 per cent of all commercial bank deposits. These nationalized banks have steadily expanded their networks of branches. In Indonesia, the Bank Rakyat Indonesia has extended its retail points to villages in two ways: the first, by establishing branches at the village level and the second, by organizing mobile units which travel according to a schedule from one village to another.[52]

---

[41] Ace Partadireja, *op. cit.*, p. 56.

[42] Nguyen An Nhon, "Credit for small farmers in Vietnam", in AID, *op. cit.* Also see, IBRD, *Agricultural Credit*, *op. cit.*, p. 41.

[43] Ace Partadireja, *op. cit.*, p. 56.

[44] See Nguyen An Nhon, *op. cit.*, pp. 6, *et seq.*

[45] See "Problems encountered in the mobilization of personal savings in urban and rural areas: a case study of the Philippines", *Economic Bulletin for Asia and the Pacific*, vol. XXVI:1, 1975, p. 65.

[46] Shigeru Ishikawa, *op. cit.*, p. 48.

[47] Orlando Sacay, "Small farmer credit in the Philippines", in AID, *Spring review of small farmer credit*, *op. cit.*, p. 5.

[48] *Ibid.*, p. 29.

[49] See Reserve Bank of India, The General Report of the Committee of Direction, *All India Rural Credit Survey* (abridged edition), 1955, p. 69.

[50] "Problems encountered in the mobilization of personal savings in urban and rural areas: a case study of Pakistan", *Economic Bulletin for Asia and the Pacific*, vol. XXVI:1, p. 53. However, see the observation in the same paper, p. 58: "Few banks can seriously hope to have profitable branches in rural areas. It is self-evident, therefore, that the scope of commercial banks in rural areas is quite limited".

Yet, there is no evidence to show that the commercial banks lend on any serious scale to the small farmer. In fact, at the beginning, the State Bank of India "decided to finance owner cultivators, owning not less than 25 acres of land."[53] It now appears that, after an initial spurt, there has been no rapid growth of credit from this source to agriculture.[54] In Sri Lanka, the two state-owned banks have carried on a programme of rapid expansion into the rural areas, the Bank of Ceylon, having established 123 branches in 1974 in the offices of Agricultural Productivity Centres.[55] In Iran, the Agricultural Co-operative Bank has expanded rapidly since 1963 and now almost all small towns are served by a bank. Yet, the impact on the availability of credit to the small farmers is reported to be little.

However, it is quite probable that the advent of commercial bank credit to the larger-scale operators in a period of rapidly rising yield per acre would have released resources from this community to lend to the small farmers. In fact, there is evidence that this change has been taking place. Between 1951/52 and 1961/62, the proportion of all loans made to the farmer by "professional money-lenders" fell from 45 per cent to 13 per cent, while that of "agricultural money-lenders" rose from 25 per cent to 36 per cent.[56] In Bangladesh, the surplus farmers "gradually took up money lending . . . and use a part of their surplus in trading. Money-lending at high rates of interest and often against land mortgage was found to be more profitable than investment in agricultural improvement."[57] To this extent, the small farmer would have had access to a greater variety of sources of credit as well as be presented with greater competition in the supply of credit, thus being able to "obtain private credit on slightly improved terms."[58]

(d) *Lead banks and farmers' service societies in India*

In more recent years, the commercial banks in India have been more actively drawn into providing credit for the small farmer, under the schemes of Lead Banks started in 1969 and the Farmer Service Societies started in 1974 on an experimental basis on the recommendation of the National Agricultural Commission.[59] Under the Lead Bank scheme, a number of commercial banks were required to function as leaders in lending in selected districts. In performing this function, each lead bank would conduct a quick survey of the economic conditions in the district and formulate comprehensive credit plans for the district. Under favourable conditions, it was envisaged that the lead bank would organize the provision of a multiplicity of services: marketing, technical services and commercial banking.[60] By mid-1974, 338 districts had been surveyed and bank branches opened in "unbanked centres with the needed minimum infrastructural facilities".[61] Farmer Service Societies, as envisaged by the National Commission on Agriculture, are "multi-purpose in character and provide short-term, medium-term and long-term loans to their members and also supply inputs (and) arrange for the marketing of produce."[62] Their management will be under the supervision of commercial banks so that the experience of banks as vendors of credit can be used in conjunction with the advantages of co-operative societies as local institutions. Moreover, in order to ensure that the weaker sections of the potential clientele will not be neglected, two-thirds of the seats on the boards of management have been allocated specifically for them.[63] By mid-1974, 16 Farmers' Service Societies had been started on an experimental basis in selected Small Farmer Development Administration/Marginal Farmers and Agricultural Labourers areas.

(e) *Co-operative societies*

In contrast to commercial banks, co-operative societies were specifically set up in most of the countries of the region,[64] to serve the needs of the rural population and particularly the weaker sections of it. The face value of shares was kept low, so that even small farmers could join and the mechanisms for electing the directors were made democratic. The area covered by each society was meant to be kept to such a size that the members would have common knowledge and understanding and be familiar with the institutions. All these were expected to remove the aura of awesomeness confronting the small-scale farmer when he visits an office of a regular commercial bank. In countries for which there are data, it does not appear that co-operative societies have, except to a small extent, solved the problem of providing credit to the small farmer. Moreover, it can be documented that the co-operative societies have, in fact, supplied much of their credit to the same categories who, by and large, would have been eligible for credit from commercial banks, perhaps on somewhat less favourable terms than they obtained from co-operative societies.

---

[51] See "Resurrecting the farm sector", *Bangkok Bank Monthly Review*, July 1975, p. 421.

[52] Ace Partadireja, *op. cit.*, p. 57.

[53] State Bank of India, "Agriculture oriented lending by the State Bank of India", in Reserve Bank of India, *Financing of Agriculture by Commercial Banks*, 1968, p. 132.

[54] *Fifth Five Year Plan, op. cit.*, p. 5.

[55] Central Bank of Ceylon, *Annual Report 1974*, p. 140.

[56] Reserve Bank of India, All-India Rural Credit Review Committee, *op. cit.*, p. 400. It is probable that some part of this change is spurious and arises from undiscriminating response.

[57] Swadesh Bose, "The Comilla co-operative approach . . .", *op. cit.*, p. 23.

[58] Reserve Bank of India, All-India Rural Credit Review Committee, *op. cit.*, p. 401.

[59] See National Commission on Agriculture, *Interim Report on Credit Services for Small and Marginal Farmers and Agricultural Labourers*, 1971, pp. 28, *et seq.*

[60] See V. V. Bhatt, *op. cit.*

[61] *Annual Report and Trend and Progress of Banking in India*, 1973-1974, p. 42.

[62] Reserve Bank of India, *Report on Currency and Finance*, 1973-1974, *op. cit.*, p. 138.

[63] Government of India, Planning Commission, *Draft Fifth Five-Year Plan*, 1974-1979, vol. 2, p. 82.

In India, not more than 10 per cent of the rural population borrowed from co-operative societies in 1970/71.[65] To quote the All-India Rural Credit Review Committee, "it does appear . . . that the bigger cultivators received a much larger share of co-operative credit than would appear to be justified, if allowance was made for the extent to which their own resources could have helped to finance their outlays on the farm".[66] In three districts, one each in the States of Maharashtra, Mysore and Orissa, "only about 42 per cent of the total households are in the co-operative fold. The bulk of the rest, outside the field of co-operation, consists of small cultivators".[67] The National Commission on Agriculture also found evidence to suggest "that the smaller cultivators are indeed handicapped in having access to co-operative credit".[68] Information in table 34 confirms these observations clearly. There is also evidence from the Republic of Korea that the larger farmers have stood to benefit more from the credit provided by the National Agricultural Co-operative Federation.[69]

Table 34. INDIA: BORROWINGS FROM CO-OPERATIVE SOCIETIES, 1961/62

Asset group (Rs)	*Households (per cent)*	*Co-operative credit (per cent)*	*Percentage of families borrowing from co-operative societies*	*Average loan per acre (Rs)*
Less than 500 . .	6.5	0.5	2.6	1.81
500 — 1,000 . . .	9.7	1.5	3.9	2.38
1,000 — 2,500 . .	24.8	7.4	6.2	2.81
2,500 — 5,000 . .	23.3	14.3	9.4	3.66
5,000 — 10,000 . .	18.6	20.7	12.3	4.42
10,000 — 20,000 .	10.7	21.4	15.4	5.36
20,000 and above .	6.4	34.2	19.0	7.33
All assets group . .	100.0	100.0	9.4	4.81

Source: Reserve Bank of India, *Report of the All-India Rural Credit Review Committee, op. cit.*, pp. 127 and 128.

There are many reasons why the co-operatives have not succeeded in satisfying the small farmer's credit needs as well as they were expected to. Co-operative societies, in general, do not satisfy the credit requirements of the small farmer to the full. They disburse "production credit" and the small farmer is left to seek funds for other purposes from other sources. "The position of the small farmers in the credit market cannot be improved without meeting a part of their requirements for consumption (and emergency outlays). In fact, these expenses, though not strictly agricultural, are so closely related to the efficiency of the farm workers that it would be unrealistic to consider them as unproductive."[70]

The web of economic and social relations that exist in the rural habitat may not easily permit the small farmer, for example, to borrow from the local shopkeeper for the purchase of provisions and from the co-operative society for the purchase of inputs into farming activity and at the same time sell his produce to a purchaser, independently of the farmer too. In the case of India, some of these relations have been well summarized by the All-India Rural Credit Review Committee. "The caste system, the inadequate spread of literacy, the type of land tenures prevailing in certain areas and similar factors account for the difficulty of ensuring that co-operative and other self-governing institutions set up in the villages operate strictly and effectively in accordance with democratic principles. This is particularly the case when there are large disparities between members not only in economic terms but also in respect of factors such as influence, authority and social status."[71] Thus, the small farmer may be forced into borrowing from a source which has considerable economic power over him. Co-operative societies are required to be run in accordance with complex rules and regulations prescribed by national legislatures. This requirement has tended to keep out persons with leadership qualities but without literacy and skills in the use of numbers from playing a dominant role in the management of co-operative societies.

---

[64] Attempts are being made to establish such institutions in Afghanistan.

[65] Twenty-six per cent of the rural population was covered by active societies and 36 per cent of all members borrowed from co-operative societies. Therefore, 9.4 per cent of the rural population borrowed from co-operative societies. See Reserve Bank of India, *Selected Statistics Relating to Co-operative Credit in India, 1971*, p. 2.

[66] Reserve Bank of India, *Report of the All-India Rural Credit Review Committee, op. cit.*, p. 172.

[67] National Council of Applied Economic Research, *Effectiveness of Co-operative Credit for Agricultural Production*, New Delhi, 1972, p. 96.

[68] National Commission on Agriculture, *Interim Report on Credit Services for Small and Marginal Farms and Agricultural Labourers, op. cit.*, p. 7.

[69] Robert B. Morrow and Paul E. White, "Farm Credit in Korea" in AID, *Spring Review of Small Farmer Credit, op. cit.*, p. 16.

[70] National Council of Applied Economic Research, *Credit Requirements for Agriculture*, New Delhi, 1974, p. 33. See also D. R. Gadgil, "Co-operative finance in India — Some problems" in International Co-operative Alliance, *Agricultural Co-operative Credit in South East Asia, op. cit.*, p. 15.

[71] Reserve Bank of India, *Report of the All-India Rural Credit Review Committee, op. cit.*, p. 188.

Consequently, power in the conduct of the affairs of co-operative societies has fallen into the hands of large landholders and other categories of persons to the virtual exclusion of the small farmers. In the Comilla-Kotwali *tana* in Bangladesh, in 1972, the average size of land holding for managers in 32 societies was 5.06 acres, while the average size of holding in that *tana* was 1.86 acres.[72] The situation in Nepal has been described as follows: "leadership in the management of co-operative societies has gone into the hands of people who are presently of the landlord class and these people dominate the societies . . . the leadership of most societies consists of those whose interests are contrary to the needs of the tillers".[73] It can be observed in table 35 that the representation of the larger landholders in the committees of management of the co-operative societies under study was out of all proportion to that in the co-operative society itself: 81 per cent of the membership in the categories less than 10 acres having only 25 per cent of the places in the committees of management. When credit had to be allocated, the committee of management refused loans on grounds of caste, politics or kinship.[74]

Table 35. INDIA: DISTRIBUTION OF MEMBERS OF CO-OPERATIVE SOCIETIES AND MEMBERS OF COMMITTEES OF MANAGEMENT IN THE BROACH, BILLARY AND SHAHABAD DISTRICTS, 1967/68

(in percentages)

	Co-operative societies	*Committee of management*
Landless	5.9	5
Less than 2 acres	14.8	2
2-5 acres	34.1	6
5-10 acres	26.4	12
10-25 acres	15.4	29
25 acres and above	3.4	46

Source: National Council of Applied Economic Research, *Effectiveness of Co-operative Credit, op. cit.*, pp. 187 and 203.

In providing credit to the rural sector, including the small farmer, co-operative societies have suffered from a chronic disability arising from very high rates of default of payment. A rough measure of the rates of default in several countries of the region is provided in table 36. In this respect, the performance of the small farmer is not, in general, worse than that of the large farmer. In fact, it has been pointed out that large farmers tend to have a greater ability to withhold repayment on account of their greater political power.[75] Nevertheless, in India, in primary credit societies, the percentage of loans overdue to loans outstanding rose steadily from 20.3 per cent at the end of the financial year 1960/61 to 43.9 per cent in 1971/72.[76] In Sri Lanka, the proportion of overdue loans in total loans outstanding was 65 per cent in 1965-1969 and 82 per cent in 1970.[77] In the Philippines, default of payment has been a recurring feature in the activities of the Agricultural Co-operative Administration.[78] In the Muda Valley irrigation project in Malaysia, "some defaults" have been reported.[79]

Table 36. RATES OF DEFAULT IN THE REPAYMENT OF LOANS

Country	*Institution*	*Rate of default (percentage)*
Afghanistan	Agricultural Development Bank	77
Bangladesh	Agricultural Bank	76
India	Primary Co-operative Credit Societies	7
Iran	Agricultural Co-operative Bank	44
Malaysia	Bank Pertania Malaysia	21
Pakistan	Agricultural Development Bank	65
Philippines	Rural Bank	18
Republic of Korea	National Agricultural Co-operative Federation	15
Sri Lanka	New Credit Scheme	41
Thailand	Bank of Agriculture and Agricultural Co-operatives	50

Source: IBRD, *Agricultural Credit, op. cit.*, annex table 12.
Note: Rate of default = 100 percentage repaid.

Several reasons have been given for this phenomenon of widespread default. Among them perhaps that which has most relevance to the small farmer is that credit has failed to serve its purpose. It has been noted in Sri Lanka that "the bulk of these defaulters are generally the small farmers to whom agricultural credit is another form of static credit as it does not help them very much to raise their incomes without other forms of assistance. Very often they are neither better off nor worse off at the end of the credit period".[80] A roughly similar reason is presented in the Philippines: "the biggest single cause of poor repayment was and still is the improverished condition of the numerous small farmers whom the Agricultural Credit Administration is called upon to serve".[81] In Thailand, "when it came to repaying their loans to the co-operatives, these farmers seldom had the money, and if they did have any surplus, it often went to other creditors. Furthermore, . . . [in co-operative societies] interest rates were low and more importantly, once repaid, it was difficult and slow to reacquire funds".[82] The situation is most acute when defaults on a substantial scale have "blacklisted" a society, as is done in India and Sri Lanka, consequent upon which the society as a whole fails to receive funds from the sources further up in the structure and credit is eventually denied to everyone whether in default or not. Where such a situation seems imminent, it would be to the advantage of the individual borrower to withhold repayment and use the money to finance his operations.

---

[72] M. A. Mannan, "Rural leadership and its emerging pattern in Bangladesh", Academy of Rural Development, Comilla, 1972, (mimeo.), quoted in Swadesh Bose, "Comilla Co-operative Approach . . .", *op. cit.*, p. 23.

[73] Government of Nepal, *The Co-operation Review Committee*, 1968, pp. 24 and 25.

[74] National Council of Applied Economic Research, *Effectiveness of Co-operative Credit for Agricultural Production, op. cit.*, p. 159.

[75] See Uma Lele, "The roles of credit and marketing in agricultural development", in ed. Nurul Islam, *Agricultural Policy in Developing Countries* (New York, John Wiley & Sons, 1974), pp. 413, *et seq.*

[76] Reserve Bank of India, *Selected Statistics Relating to Co-operative Credit in India*, 1974, p. 2.

[77] Godfrey Gunatilleke, *et al.*, "The co-operative system of small farmer credit in Sri Lanka", in AID, *Small Farmer Credit in South Asia*, vol. X, 1973, p. 36.

[78] Solomon G. Cabrera, *op. cit.*, pp. 137, *et seq.*

[79] Wai and Hoover, *op. cit.*, pp. 36-37.

In contrast to this incapacity to pay, there has come to light in several countries of the region an attitude "built over a number of year not to repay the co-operative loans in time". Those contributing to the growth of this attitude are often pointed out as politicians and farmers' leaders. It is reported that, in the Philippines, farm leaders obtained loans for farmers for a commission and instigated the borrowers to withhold repayment alleging that the loans were in fact grants in aid.[83] Tablante observes that cultivators "think of credit granted by government lending institutions as a hand out or a dole instead of an obligation to pay back when due".[84] In Nepal, those seeking election to office have been observed to have promised farmers that they would ensure that loans to the Agricultural Development Bank would not have to be paid.[85] A similar phenomenon has been observed in India. "It is well known that, particularly during the election years, but even at other times, there is considerable political propaganda in favour of postponement of recovery of loans or pressure on the credit institutions to grant extensions or avoid or delay enforcement of certain processes for recovery or to grant loans beyond the limits determined by rules in force."[86] In Sri Lanka in 1967, the Government, in fact, wrote off all debts taken from corporative societies before 1 October 1958 and such debts taken between 1 October 1958 and 31 August 1966, if non-payment was due to crop failure.[87] A similar waiver seems to have been in effect in 1974.[88]

The National Council of Applied Economic Research, in studying co-operative credit societies in three districts in separate States in India, found that overdue loans were least in Broach (Gujarat) where there was "a mechanism linking credit with marketing".[89] This was convenient in Broach because cotton is principally a commercial crop, unlike rice in Bellary (Mysore) and Shahabad (Orissa) which may leave only a marginal marketable surplus in the hands of the small-scale producer. However, marketing arrangements by co-operative societies, which, in Asia, are mostly state-sponsored and supervised, do not constitute as competitive an outlet for the produce of the small producer as does the local trader or commission agent. Indeed, it may often be the case that the ensuing dependence of the small-scale producer for a part of his requirements of credit may not leave him at freedom to sell his produce to the co-operative society and so contribute to the phenomenon of default in the repayment of credit. The marked success in lending to small holders in oil palm and rubber settlements under the Federal Land Development Authority in Malaysia is instructive: the land is under cash crops and there is an entirely satisfactory institutional link between credit and marketing.

The high rate of default is seen sometimes as the consequence of a fuzzy mixture of business with sentiment. As the Asian Agricultural Survey Team saw it," . . . rural lending in most countries consisted of a mixture of sentiment for rural welfare, high social purpose and the belief that somehow the position of agricultural credit alone would serve to generate agricultural progress".[90] In respect of India, it has been observed that the "dead weight of overdues" on co-operative credit societies would cease to be if "business were isolated from welfare".[91] In Sri Lanka, "credit schemes . . . came to be regarded as welfare measures which were adopted by the Government to assist the peasant farmer".[92]

---

[80] Central Bank of Ceylon, *Report of the Survey of Default in the Repayment of New Agricultural Loans*, 1972, p. 30. Among farmers who were in default of repayment, those in the two lowest income brackets had loans outstanding as a percentage of income at 36 per cent and 55 per cent.

[81] Solomon G. Cabrera, *op. cit.*, p. 142.

[82] Pantum Thisyamondol, *et al.*, *Agricultural Credit in Thailand, Theory, Data, Policy* (Bangkok, Kasetsart University, 1965), p. 45.

[83] Cabrera, *op. cit.*, p. 142.

[84] N. B. Tablante, "Implications of credit institutes and policy for savings and capital accumulation in Philippine agriculture", *Philippine Economic Journal*, vol. III:2, 1964, p. 218.

[85] Co-operative Review Committee, *op. cit.*, p. 24.

[86] Reserve Bank of India, *Report of the All-India Rural Credit Review Committee*, *op. cit.*, pp. 193-194.

[87] I. K. Weerawardena and I. Colonnage, *A Short History of Credit for Peasant Agriculture in Sri Lanka* (mimeo.), 1974, p. 19.

[88] Central Bank of Ceylon, *Annual Report 1974*, *op. cit.*, p. 46.

[89] National Council of Applied Economic Research, *Effectiveness of Co-operative Credit . . .* , *op. cit.*, p. 27.

[90] Asian Development Bank, *Asian Agricultural Survey*, 1967, p. 88.

In principle, the services of credit co-operative societies have the virtues of those of the money-lender and the trader and, in addition, are free from the drawbacks that result from the conflicting interests of the lenders (who may wish to acquire the land belonging to the cultivator) and the cultivators. However, in organizing and formalizing the activity of lending to small farmers some problems arise. One of the most difficult of these is the conflict between the economies of scale accruing to a co-operative society covering a large number of cultivators and the common understanding resulting from frequent contact among active participants in a society with a much smaller number of members. In an enquiry undertaken by the National Council of Applied Economic Research, it was revealed that societies with a larger number of villages invariably had a poorer coverage of cultivators. Moreover, such wider areas of operation must carry with them the danger that co-operative societies as sources of credit would increasingly assume the nature of "bureaucratized" and impersonal commercial banks while at the same time reducing the probability of adequate supervision. Yet, in most instances, a village society is not a viable credit institution, and the tendency during recent years in several countries of the region has been to increase the area covered as well as the functions handled by each society. The authorities in Thailand have initiated efforts to organize district-wide societies,[93] while, in India, it was planned to reduce the number of credit societies to 120,000 during the period of the fourth five-year plan.[94] In a process of reorganization in Iran, the number of co-operative societies was reduced from 8,400 in 1972 to 3,000 in 1974. In the Republic of Korea, the 5,859 societies that existed in 1970 are expected to be reduced to 1,500, with each serving a district.[95] In doing so, they would of course lose their distinctive character as "co-operative" societies, and this again seems to be the trend in policy changes, where commercial banks are increasingly being drawn on not merely as sources of funds but also of managerial expertise and supervisory functions.

There have also been attempts to gain economies of scale by functioning as multi-purpose institutions rather than credit societies. The advantages, of course, go beyond mere economies of scale. A multi-purpose co-operative society providing credit, supplies for agricultural operations and marketing facilities would be a much closer substitute for the local trader who turns money-lender. In fact, this characteristic is strongly marked in some of the most successful co-operative societies, e.g. that in the Broach district in Gujarat State, India, and the Palugama multi-purpose co-operative society in the Badulla district, Sri Lanka. Since 1961, the co-operative societies in the Republic of Korea have been multi-purpose in character. The functions of the Lead Banks and the Farmers' Service Societies, that are being implemented in India, go even further. The striking success of the BIMAS[96] programme in Indonesia in its initial stages was in large measure due to the provision of a package of services including credit. However, it is noteworthy that these successes have been no more than sporadic or spasmodic. "Among the reasons for the failure of multipurpose co-operatives in the past [in India] has been that, although they were multipurpose in their objectives, too much emphasis was laid on credit aspects only, often almost to the total neglect of other service functions. Further, in organizing multipurpose societies, their viability was not always taken into account . . . Moreover, the multipurpose societies were not backed by adequate technical, extension and other supporting personnel".[97] The reduced vitality of the BIMAS programme has also been attributed to the over-extension of the services of key personnel too rapidly over a large expanse.[98]

(f) *The government as a source of credit*

In the formal market, government departments, agencies and enterprises continue to be a substantial source of credit for the small farmer, as can be seen in table 29, above. Some of the agencies prominent in this field are the Federal Land Development Authority in Malaysia, the Agricultural Credit Administration in the Philippines and the Department of Agrarian Services in Sri Lanka. In general, there has been a marked tendency for the Government to withdraw from direct lending and to channel its funds through other institutions, such as banks or co-operative societies. The major reasons[99] for this dissatisfaction have been the cumbersome procedures in the operation of governmental apparatus in lending and recovering the loans, with little success in the supervision of credit use.

---

[91] S. C. Shah, "Agricultural finance — some issues", in Reserve Bank of India, *Financing of Agriculture by Commercial Banks*, *op. cit.*, p. 81.

[92] Gunatilleke, *et al.*, *op. cit.*, p. 35.

[93] Pantum Thisyamondol, *et al.*, *op. cit.*, p. 47.

[94] Government of India, Planning Commission, *Fourth Five-Year Plan*, 1969-1974, p. 217.

[95] Robert B. Morrow and Paul E. White, *op. cit.*, p. 6.

[96] Acronym for *Bimbigan Massal* (mass guidance), a government-sponsored movement begun in 1966 to provide a package of services including credit and very intensive support. See Gary Hansen, "Episodes in rural modernizations: problems in the BIMAS Programme", in AID, *Spring Review of Small Farmer Credit*, vol. XI, *op. cit.*

[97] Michael G. Schluter, "The role of co-operative credit in small farmer adoption of the new cereal varieties", in AID, *Spring Review of Small Farmer Credit*, vol. X, *op. cit.*

[98] Gary Hansen, *op. cit.*

(g) *Central banks and credit to the small farmer*

A striking feature of the policies adopted by Governments in several countries of the region to direct credit to agriculture, including the small farmer sector, is the more prominent role assigned to central banks in directing and financing institutions that provide such credit. They often provide rediscount facilities on preferred terms for paper originating in financing agricultural production, especially when co-operative institutions are a party to the original transaction. In several countries, they underwrite the loans for agricultural production granted by commercial banks to co-operative or other similar institutions, in order to reduce the risk of default of payment. For example, in Sri Lanka, under the New Credit Scheme initiated in 1967, the Central Bank of Ceylon undertook to pay the People's Bank 75 per cent of all defaults of repayments by co-operative societies to the Bank.[100] Under the Agricultural Credit (Stabilization) Fund established by the Reserve Bank of India in 1955, short-term loans made by co-operative societies which were in default of repayment due to crop failure can be converted into medium-term loans at each successive step of the co-operative credit structure, the apex banks having access to the Fund itself. The Reserve Bank of India has also maintained the Agricultural Credit Long-Term Operations Fund to provide resources for providing credit in the long term. In most countries, central banks do maintain a special section on rural credit, and several studies which have formed the basis for policy formulation in the supply of rural credit in general and to the small farmer in particular have been organized and carried out by central banks.

(h) *Rates of interest in the formal market*

In general, credit has been made available at lower charges by the formal market than by the informal. In the light of the higher rates of default and higher costs of administration in the formal market, discussed earlier in this chapter, this seems surprising. A possible explanation may be that the rates of interest in the informal market contain certain elements of monopoly earnings and that Governments in several countries have made it an objective of policy to compete against these with cheaper credit provided in the formal markets.

It is to be noted that such credit would not be cheaper than the cost of credit to other borrowers in the formal market (e.g. exporters, importers or industrialists), but, if anything, somewhat more expensive, so that the additional costs of administration and losses through default can be covered. It was noted earlier that, despite the increase in the credit requirements of farmers consequent upon the adoption of the new technology, the size of a loan to each farmer would not be of such an amount as to bring down the cost of servicing substantially. As presently organized and with current wages, commercial banks or other institutions in the formal market would incur high costs[101] in making loans to small farmers and would have to charge for them accordingly. One way of reducing these market costs is for the small farmers by co-operative action to provide these services for themselves at lower or zero wages. This would, of course, require the acquisition of some skills in elementary book-keeping, but at a level no higher than those possessed by the local money-lender.

In lending at rates approximating to those that prevail in the formal market elsewhere in the economy, these financial institutions suffer from some disabilities in attracting deposits from the rural saver. Those who save generally lend in the informal market. During the agricultural credit survey conducted by the Nepal Rastra Bank, out of 451 families which reported savings, 306 had lent the money to private parties and only 39 persons had made deposits in co-operative societies.[102] In the Bellary district of Mysore State, India, out of 20 co-operative societies surveyed in 1967/68, savings deposit schemes existed only in two after a history of co-operative societies extending beyond a generation.[103] Consequently, as observed earlier, co-operative societies have come to rely almost wholly on sources outside the community of cultivators for working capital. However, the institutions in the formal market provide some advantages, such as greater security and higher liquidity. With effective competition resulting in a substantial reduction in rates of interest in the informal market, these latter advantages would probably hold in favour of the formal market.

---

[99] These have been well summarized in the *Report of the All-India Rural Credit Survey*, in characterizing credit from government agencies as " . . . apt to be little else then the ill-performed disbursement of inadequate monies by an ill-suited agency". See *Rural Credit Review Committee, op. cit.*, p. 375.

[100] Central Bank of Ceylon, *Annual Report 1974, op. cit.*, p. 43.

[101] For example, at a minimum, wages (perhaps including incentives for working in non-urban areas) for a manager, a book-keeper and a cashier, together with attendant staff, cost of motor vehicles, and housing of a quality similar to that available in urban areas for the staff and inspection staff.

[102] *Agricultural Credit Survey Report, op. cit.*, p. 394.

[103] National Council of Applied Economic Research, *Effectiveness of Co-operative Credit . . . , op. cit.*, p. 90.

In contrast to this line of argument, it has been hypothesized that "realistic" or market rates of interest can increase the flow of savings and bring in other benefits to the small farmer.[104] Some tend to think that "potentialities exist for raising saving rates of small farmers, diverting the savings of the wealthier farmers and utilizing the savings flow for efficient investment in new stages of the green revolution ... if deposit rates are raised at financial institutions, if loan rates are raised to induce economics in capital inputs ... Precedent can be found ... for measures that India might adopt in order to realize the savings, investment, employment and distribution effects of liberalized finance in its northern region".[105]

It is well to bear in mind that returns to investment in the rural sector are considerable. Where investment takes place in the small farm sector without financial intermediation, higher rates of interest have no necessary function to perform in inducing the allocation of resources from consumption to investment. Small farmers who have savings which they do not want to use themselves will lend these in the informal market where rates of interest are high. Thus, high interest rates payable in the formal sector constitute an incentive to those who can save to place their savings in financial intermediaries.[106] In fact, policy-makers in India maintain that the effects of a policy of high interest rates on the volume of savings is weak and uncertain and therefore "sharp increases in interest rates are neither desirable nor feasible."[107] However, this ignores the fact that, regardless of the effect on the volume of savings, a diversion of savings to the formal market in rural areas from the urban market would be of benefit to small farmers. Within the last decade, Governments in several countries of the region have clearly moved away from policies intended to subsidize the flow of credit to the rural community and have begun to establish rates of interest more in line with those in the rest of the formal market. Such higher rates of interest reduce demand for credit satisfied at subsidized prices and taken advantage of by those larger farmer groups who had privileged access to their suppliers. Where opportunities for investment yield substantial returns, as in small-scale agriculture, there is no necessity at all for subsidized credit. Instead, as shown earlier, small farmers find it not unremunerative to borrow in the informal market at substantially higher rates of interest to finance productive activity. Therefore, where institutional reform can provide the small farmer with better access to sources of credit, rates of interest marginally higher than those prevailing in the urban formal market will enable him both to adopt the new technology and to retain for himself a larger proportion of the surplus earned than when he had to borrow in the informal market. Successful attempts by the Government and the commercial banking community to direct more investible resources to the small farmer in the formal money market would, to some extent, release the pressure of demand for credit in the informal market and bring about some fall in the rates of interest there. This would further benefit small farmers who continued to operate in this market. At the same time, the larger farmers, at their scale of operation, may find it more convenient and perhaps even marginally less costly to borrow in the urban market, releasing further resources in the rural sector for the use of the small farmer. At these higher rates of interest, some savings could be redirected from the urban to the rural sector of the formal market.

To date, institutions in the formal market for credit in the rural sector have not been particularly successful in mobilizing savings. As can be gathered from the preceding examination of several of these institutions, they concentrate on credit dispensation, ignoring the importance of deposit mobilization.[108] The Post Office Saving Bank (or some variant of it, such as the Government Savings Bank in Thailand) has been the commonest form of an institutional facility for small savers in the rural sector in developing countries of the region. This has been supplemented with mobile units in some instances. In their functioning they have not been dynamic institutions, but almost always conduits for small savings, mostly into government securities. When co-operative societies have achieved a measure of success in mobilizing the savings of the small farmer, it has been the consequence of intensive and vigorous attempts to that end. An instructive example here may be the experience in Comilla, Bangladesh, where the weekly meetings of the membership helped to raise some savings from the general membership.[109] In contrast, it was revealed in the course of the agricultural credit survey in Nepal that only a small portion of the rural population were aware of the existence of the main deposit-accepting institutions.[110] In some instances, as in the case of Sarawak Malays, the norms of religious behaviour may not let them feel free to deposit money in a savings bank.[111] In Sri Lanka, the Government enacted legislation in 1973 to establish a savings scheme for all paddy producers, who are by and large small farmers, by compulsorily deducting a fixed amount per unit of sale. These funds, together with accumulated interest, will be made available to the depositor at the age of retirement.[112] Thus, the building up of institutions to mobilize small farmer savings requires increased attention. Of equal importance, however, is the necessity to ensure by reform that small farmers have equal or even greater access to the institutions handling the increased flow of credit in the formal sector of the rural money market.

---

[104] See, for example, C. L. G. Bell and John H. Duloy, "Rural target groups" in Chenery, Hollis, *et al., Redistribution with Growth* (London, Oxford University Press, 1974), p. 128.

[105] Edward Shaw, *Financial Deepening on Economic Development*, 1973, pp. 124-125. Also see Ronald I. McKinnon, *Money and Capital in Economic Development* (Washington, D.C., Brookings Institution, 1973). Shaw and McKinnon argue that, if misguided and maladministered government policies do not interfere, there would come into being a set of prices, including interest, which would make the "lagging" economies grow faster and at the same time create more employment and a more equitable distribution of income. They cite the examples of Indonesia and the Republic of Korea, among others. Apart from reservations regarding the benevolence of the market mechanism, one may be sceptical about their emphasis on the factors that explain recent economic development in the countries they have chosen as models. See review of Shaw's and McKinnon's works in the *Journal of Economic Literature*, vol. XIII, pp. 108 and 500, respectively.

[106] For a useful discussion of these aspects, see "Incentives, motivation and roles of fiscal, monetary and other policies for generating and mobilizing private savings", *Economic Bulletin for Asia and the Pacific*, vol. XXVI, No. 1, pp. 170-187.

[107] *Draft Fifth Five-Year Plan, op. cit.*, p. 20.

[108] Several papers in the *Economic Bulletin for Asia and the Pacific*, vol. XXVI, No. 1, 1975, discuss this phenomenon in developing countries of the region.

4. *Conclusion*

The brief survey of the institutions in the credit market for the small farmer brings out several points regarding institutional changes. With the exploitation of the new technology in agriculture, there is a growing market for credit, in which the needs of the small farmer have been catered for, though still unsatisfactorily. In many instances, his demand for credit is not in such quantities yet as to make economically feasible a direct rationship between him and the commercial banks or other specialized financial institutions. In these circumstances, it is important to create a set of institutions which undertakes the activity of retailing credit at little or no market cost, so that the small farmer can obtain credit at a price substantially lower than that prevailing in the informal market and only marginally higher than in the rest of the formal market. *Barrio* organizations, co-operative societies, farmers' associations and service societies perform this function in several countries, but inadequately. The controlling influence in these institutions is rarely in the hands of the small farmers. These institutions, where they have worked with some success, have combined the services of credit supply and marketing and attempted to meet the total credit requirements, so that there is effective competition against the existing institutions in the informal market. Such competition is well-nigh impossible unless the dominant institutions in the money and capital markets function in favour of the small farmer.

It has also been brought out that the establishment of institutions to supply credit alone would not provide a satisfactory solution to the problem of the availability of credit to the small farmer. There would need to be complementary changes, such as a scheme of crop insurance to raise his credit-worthiness; tenurial reforms to ensure the small farmer greater security and a larger share of the net farm income, both of which would raise his credit-worthiness and, perhaps, his capacity to accumulate out of his own resources; and an effort to associate the provision of credit with the marketing of the product.

---

[109] See M. Solaiman, and Azizul Haq, "Small farmer credit in Bangladesh" and Myers, Desaix, "Comilla: Reassessment and replication, the co-operative under stress" in *Small Farmer Credit in South Asia* (Washington D.C., AID, 1973), vol. X.

[110] See Nepal Rastra Bank, *Agricultural Credit Survey Nepal, op. cit.*, vol. II, pp. 396-397.

[111] See Tom Harrison, *op. cit.*, pp. 200-202.

[112] See *Paddy Producers' Savings Law*, No. 9 of 1973.

Chapter 6.

LAND REFORM

1. *Introduction*

The case for land reform in developing ESCAP countries is based on the need for an egalitarian farm structure which maximizes incentives to individual operators. The social, political and economic arguments for such egalitarian small-scale peasant agriculture with a tenure system that provides incentives to higher productivity have been presented elsewhere in this *Survey*.[1] In this section, the experience of some countries of the region regarding land reform programmes will be reviewed and some of the problems that arise discussed.

The question of land reform has two aspects. The first is concerned with farm size and distribution of farm units. A programme designed for the benefit of small farmers would involve the break-up and redistribution of large land holdings and the consolidation of fragmented sections. This can be tackled directly through the obligatory break-up of large holdings. It is usually achieved, however, by a change in the tenurial system through land-to-the-tiller type programmes.

The second aspect concerns tenure — a much more complicated matter. The purpose here is two-fold: to improve income distribution by shifting a greater part of income from land from the landlords to the producers, who are usually small-scale farmers; and to provide greater security for the producer. This is expected to induce a higher level of investment in agricultural production, whereas absentee landlords frequently invest in off-farm activities. It is also hoped that the enhanced ability and incentive of the small famer to invest will enable him to take greater advantage of technological innovations, such as those connected with the production of high-yielding varieties.

However, to achieve the objectives of equity and production incentives, it is not necessary that small farm ownership should be that of classical freehold. It is true that some rental systems, particularly many types of share-cropping arrangements, do have a depressing effect on agricultural development and that this is exacerbated if the landlord also wields economic power through credit and marketing institutions. On the other hand, many types of rental arrangements provide security of tenure, depending on the contract terms and the level of rental charges. It is therefore very difficult to make general prescriptions regarding the form of land holding for the benefit of small farmers. Nevertheless, because land is the main input in the small family sized farm in Asia and the basis of the small farmer's social and political power, the most important prerequisite for agricultural development is the provision of economical holdings under stable and secure tenurial arrangements.

2. *The deteriorating position of the small farmer*

Traditionally, family farming had been the rule in Asia. Over the last two or three hundred years, however, land was progressively alienated from the small farmer through a number of processes.

The first was through the development of large landed estates which were encouraged by the system of land tax collection. The State collected tax on all occupied land, for which task it appointed tax collectors. In some cases, as the State authority weakened, the tax collectors started claiming the lands as their property. In other instances, the State assigned the land tax to individuals or religious or charitable institutions as awards, rewards or grants, and these individuals or institutions laid claims to ownership of the lands in respect of which they were entitled to collect the tax. As a result, the tax collectors or assignees came to own large estates, particularly in south Asia, under land systems variously known as *zamindari, jagirs, birtas, inams,* friar lands etc., and the owner farmers in occupation of the lands were reduced to the status of tenants.

Big landed estates also developed through the allotment by colonial governments of large areas of virgin lands as grants or on easy terms to Europeans, religious or other institutions or favourites of the governments of the day. Some of these lands were developed as plantations of permanent crops, such as rubber, tea, coffee and coconut, some for sugar-cane and some others for annual crops, such as rice. Extensive areas of plantations were owned and developed by Europeans individually or through public or private companies in India, Indonesia, Malaysia, the Philippines, Sri Lanka, Viet-Nam and some of the South Pacific islands. Plantations required heavy investment and, to obtain economies of scale, large units worked by hired labour were preferred. In many countries the plantations remain and the main problem is one of fair wages and social security for the labour employed and, where foreign indentured labour was involved, of rights to citizenship. Unlike the plantations, rice cultivation lent itself to family farming and did not require heavy investment. The large estates intended for rice cultivation were therefore generally farmed out by the allottees in small family units to tenants and share-croppers. This gave rise to a difficult tenancy problem in some countries such as the Philippines, parts of Cambodia, Thailand and Viet-Nam.

---

[1] See chapter 2 above.

Another development which aggravated the problem of tenancies and share-cropping in Asia was the emergence of a market in land. Population pressures grew and monetization of the agricultural economy developed. Cadastral survey and land titling facilitated the process of land transfers, and lands started being concentrated in fewer hands of local as well as absentee owners. In Asia, farm land has always carried a social value in addition to its economic value, and traders and money-lenders residing in the towns invested in land. During the economic depression of the 1930s the indebtedness of farmers grew and, through fore-closures, large areas were transferred to money-lenders and traders who cultivated them through tenants and share-croppers. A new class of absentee landlords from the commercial community thus grew up with a much greater stronghold over the rural economy than that of the semi-feudal landlords.

The tendency towards absentee landlordism in agriculture was further strengthened in several countries with the growth of urbanization and industrialization between the two world wars. Many well-to-do land-holding families were attracted to towns and cities where they found better social amenities. At the same time, some of petty landowners with some education also moved out of agriculture as school teachers, village officials or as clerks in growing towns and cities. A new class of absentee landlords with roots in the soil emerged.

The cultivation of rice, which is the major crop in Asia, requires a lot of manpower at the peak seasons of transplanting and harvesting. This labour requirement is sometimes met through co-operative, mutual aid arrangements, but often it has encouraged the growth of a reserve army of landless agricultural workers. This tendency has been exacerbated, especially in south Asian countries, where landowners, for considerations of social status or caste, leave manual operations to hired farm hands. Bonded or serf labour has thus existed in several countries of Asia for a long time. Growing population pressures in stagnant economic conditions resulted in rapid subdivision of land-holdings and, in the absence of any non-farm employment opportunities, in an increase in landlessness. The existence of cheap labour encouraged even the small land-owning farmers to use hired workers for ardous agricultural operations. A large class of landless agricultural workers thus developed in many countries, living in conditions of abject poverty.

It should be borne in mind that not all tenants and share-croppers are small farmers. Under the impact of the "green revolution" based on new technology, cultivation in large holdings with hired labour became increasingly profitable. Middle and large-sized farmers often endeavoured to enlarge their holdings by taking additional land on lease or under crop-sharing arrangements.

Large areas in most countries of Asia are now cultivated under a variety of tenancy and crop-sharing arrangements.[2] Although the situation varies from country to country, most tenants and share-croppers are either without any land of their own or own petty holdings. Together with the landless agricultural workers they constitute a sizable section, if not the majority of the rural/agricultural population.

3. *Reform measures*

With the advent of independence in the countries of Asia, the demand for land reform mainly for social justice and political reasons escalated. Today the economic reasons for land reform have grown in importance. In almost every country in the last 25 years some measures have been adopted. In socialist countries like China, the Democratic People's Republic of Korea and the Democratic Republic of Viet-Nam the approach has aimed at complete abolition of landlordism followed by reorganization of agriculture on co-operative or collective lines. The same approach seems to be followed by the newly emerged people's democracies of Cambodia, Laos and South Viet-Nam. In non-socialist market-oriented countries, the objective has been to remove the basic defects in the agrarian structure and establish family farming under ownership tenure by abolishing semi-feudal tenures, by the regulation of tenancies, the introduction of land ceilings and the redistribution of ownership, so as to promote individual incentive and private investment.

---

[2] In the Philippines pure tenants (without any land of their own) constituted about 40 per cent of all farmers; together with part owners — part tenants they numbered 54 per cent, but in the high density area of Central Luzon, as much as 70 per cent — *Agricultural Census 1960*, Department of Commerce and Industry, Manila 1963, vol. 1-4.

In the Central Plains of Thailand, 56 per cent of farmers were tenant farmers (29 per cent pure tenants and 27 per cent tenant-owners who cultivated more rented land than owned land) — *Land Economic Report No. 1* of the Land Policy Division.

In Sri Lanka, 52 per cent of farmers were tenants or tenant owners — *Agricultural Census 1962*, Department of Census and Statistics, Ceylon 1965, p. 44.

In Malaysia, more than half of the paddy area is cultivated by tenants (18 per cent) or under mixed tenures (43 per cent) — Elden D. Smith & Peter R. Geethals, *Tenancies among Paddy Cultivators in Malaysia* (based on the Agricultural Census 1960).

Generally speaking, the measures can be classified into four types. The first is related to abolishing the rights of semi-feudal landlords and making the occupiers the owners of land. This was, very largely, a measure to restore rights to those who had been deprived of them through historical processes. These measures proved generally effective, especially where the occupiers had already acquired considerable rights through successive legislation and where public demand for the reform had been built up as part of a political movement, as in Bangladesh and India. In countries like Iran or the Philippines, where most occupiers were crop-sharing tenants-at-will, the programme met with considerable resistance and difficulties in implementation.

The second set of measures related to reform of tenancies, subtenancies and crop-sharing arrangements which had developed in most countries on an extensive scale. Two different approaches were adopted. The first is the "regulatory approach" which accepts tenancies as inevitable. This approach aims at mitigating some of the exploitative features of tenancy arrangements, making the tiller the effective cultivator by providing for security of tenure (sometimes with permanent and inheritable rights of possession as in Sri Lanka, or for fixed terms of from three to five years as in Malaysia and Thailand), fair rentals and the right to make improvements (with compensation for improvements in case of eviction) and to raise credit by mortgaging the tenancy right. Secondly, there was the "abolition approach" which assumes that tenancies are an impediment to economic, social and political progress and aims at doing away with all tenancies by abolishing landlordism and making the tiller the owner of land. The regulatory approach has often been combined with selective abolition by placing a limit on the extent of land which any person may own or hold, and transferring ownership in respect of the excess land to the tillers.

Measures of tenancy reform have not been as effective as the abolition of semi-feudal tenures. Regulatory legislation, in particular, has proved, by and large, to be ineffective. The history of land reform in Sri Lanka from 1958 to the early 1970s is a classical example of the regulatory approach. The legislation had provided for permanent and inheritable right of possession, for the fixation of a fair rent by the Commission of Agrarian Services not exceeding one-fourth of the gross produce or 15 bushels of paddy per acre and for the restoration of evicted tenants. No tenant could be evicted on any ground except when he himself desired to relinquish the land and that too was to take place with the approval of the Commissioner of Agrarian Services. A tenant's rights could not be sequestered, seized or sold even in the execution of a court decree. Thus, fair rent fixation was combined with complete security of tenure. An elaborate organization was set up under the Commissioner of Agrarian Services for the enforcement of the law and wide powers were conferred on him. In addition, 4,500 cultivation committees, in which farmers, including tenants, were represented, were set up to assist in the preparation of lists of tenants and in connexion with the matter of supplies and services. Despite these excellent provisions and elaborate administrative arrangements, tenants were evicted in large numbers without due process of law. Reportedly, landlords used force to evict tenants where the latter resisted pressure. The police powers of the State and the elaborate law and order machinery drawn up failed to prevent these mass-scale, forcible, illegal dispossessions.[3]

The regulatory laws in Thailand and Malaysia which provided for a fixed term of tenancy of from three to five years also proved ineffective. A landlord can always make things so uncomfortable for a tenant that he leaves of his own accord, thus making what has come to be known as a "voluntary surrender" of tenancy. Active supervision and intervention on behalf of millions of tenants may well be beyond the capacity of the Government's administrative system. For any regulatory measure to be effective, it is essential that its beneficiaries should be organized into unions or associations so that they may jointly be able to assert rights which individually it may not be possible for them to do.[4]

The abolition approach which seeks to convert tenants into owners has generally been more effective than the regulatory approach. Public regulation of tenancies is a continuing operation, whereas abolition is a once-for-all action which a properly organized administration may find less difficult to handle. An abolition operation is more likely to be successful where the State has intervened by acquiring landlords' interests out-right and transferred them to the tillers, the State accepting the responsibility for the payment of compensation to the landlords and the recovery of payment from the beneficiaries in suitable instalments. Where the tillers have been left with the option to buy out their land, they have often not done so because of the landlords' pressure. For instance, in Japan and Uttar Pradesh (India), the measures providing for state intervention proved effective and hundreds of thousands of tenants became landowners. On the other hand, in Maharashtra (India), where an option was given to the tillers to buy out the landlord's interest on terms stipulated by law, a large body of tenants failed to exercise the option and in the process lost their lands.[5]

---

[3] FAO paper presented by A. N. Seth at the Seminar on Rural Development held at Kuala Lumpur in 1975.

[4] Tenants' associations began to be formed in Japan in 1921. In 1947, these associations, which were a major instrument in the implementation of the post-war land reform in Japan, had a membership of 1.27 million — see Masaru Kajita, *Land Reform in Japan*, Agricultural Development Series No. 2 (Tokyo, Agriculture, Forestry and Fisheries Productivity Conference), p. 28. Also, see R. Dore, *Land Reform in Japan* (London, Oxford University Press, 1959).

The third set of measures relates to ceilings on agricultural holdings. These measures have been used primarily as instruments for selective abolition of landlordism. Generally, the ceiling has been applied to lands under tenancies and not to lands managed by owners directly with the help of agricultural workers. As a result, even where the ceiling has proved effective, its net result has been to confer ownership on some tenants or share-croppers who are already working the "surplus" lands and no surplus land has become available for redistribution to the landless agricultural workers. In India and Pakistan, an attempt was made to extend the application of ceilings to possession as well as ownership. However, the ceiling applied was generally high and subject to many exemptions, and not only was there a great deal of concealment but through *benami*[6] transfers and partitions the landowners often succeeded in evading the ceiling.[7]

The fourth set of measures relates to the distribution of homestead lands to landless agricultural workers or to the conferment of rights over homesteads already in their possession and to the regulation of their wages. These measures have also had limited success. Any measures for the improvement of the status of the landless agricultural workers is likely to be strongly resisted by the landowning classes. Being unorganized, agricultural workers have been able to benefit very little from land reform measures.

In India, jurisdiction over land belongs to the States. The land policy to be pursued in the States in regard to reduction in disparities in size of land holdings and the problem of tenancies was set out in the first five-year plan and elaborated further in the second and subsequent plans. The objective of land-to-the-tiller was emphasized; elaborate suggestions were made in regard to fixation of fair rent not exceeding one-fourth of the gross produce, security of tenure for tenants and share-croppers with a limited right to resumption of land by landowners for personal cultivation, and transfer of ownership to tenants and share-croppers of the non-resumable lands of the landowners; and a recommendation was made for the fixation of ceilings on ownership and possession and the redistribution of the surplus lands among small farmers and the landless. Most States enacted legislation in pursuance of the above policies, but their content varied considerably from State to State. Some followed policies of doing away with all tenancies, as in Kerala, while, in others, the emphasis was on the regulation of tenancies to mitigate some of their exploitative features. The level of ceiling imposed also varied considerably, ranging from 6 to 100 hectares or more. The effectiveness of implementation also differed from State to State. Thus, while in some States a large body of tenants and share-croppers benefited from the reform, in others many of them lost their lands in the process of implementation. The review of implementation set out in the five-year plans refers to large-scale evictions of tenants and share-croppers in some States through "voluntary surrenders of tenancies", ineffective rent regulation and *mala-fide* transfers and partitions to evade ceiling restrictions. Not much land became available for actual redistribution to small farmers or the landless. Under constant pressures from the Central Government, the States have been amending legislation to fill gaps in the laws, scaling down ceilings and strengthening implementation procedures.

In Indonesia, a land reform law was enacted in 1960 to provide for the abolition of absentee landlordism, for ceilings on land holdings ranging from 5 to 7.5 hectares in Java and 15 to 20 hectares in other areas, and for the regulation of tenancies on lands within the ceiling limit. The law generated vehement political controversies and its implementation did not make much progress after the political change-over in 1965. The new régime's emphasis shifted in favour of policies for transmigration and resettlement in the outer islands. One of the major reasons for a lack of particular thrust on land reform in Java has been the low inequality factor of land ownership. With relatively few holdings in Java above 5 hectares, there would be little land to distribute. Consequently, much more interest has been taken in new farming methods as a means of improving the small farmer's lot.

The 1972 land reforms in Pakistan provided for the fixing of ceilings on individual holdings, in terms of both ownership and possession, at 150 acres of irrigated land or 300 acres of unirrigated land.

---

[5] A. N. Seth, *op. cit.*, Government of India, *Second Five-Year Plan*, 1956, pp. 193-197. Also see R. Herring and M. Ghaffar Choudhry, "The 1972 land reforms in Pakistan and the economic implications — A preliminary analysis", *The Pakistan Development Review*, vol. XIII, autumn 1974, No. 3, pp. 245-279.

[6] Benami — incomplete or illegal.

[7] R. Herring and M. Ghaffar Choudhry, *op. cit.*, pp. 245-279.

The special feature of the reform was that lands in excess of the ceiling were taken over by the Government without any compensation and redistributed among the tenants. However, given the high ceiling level, only a small percentage of tenants received land.[8] Provision was made for a strict prohibition of tenant ejectment, unless it was established in a revenue court that the tenant failed to pay rent or to cultivate the land concerned or rendered it unfit for cultivation or sublet the tenancy. Maximum land rent was reduced from 50 to 40 per cent of the harvest under the provision of the Tenancy Laws, although implementation of these provisions has been ineffective.

In the Philippines, a series of measures were enacted following the Land Reform Code of 1963. These aimed to abolish crop-sharing tenancies and to convert them into leaseholds on fixed rentals, to change leaseholds to ownership, to secure rights for agricultural workers and their settlement in new areas and to provide supporting services, including free legal aid, for tenants. The law as it now stands is that all estates exceeding 7 hectares are to be resumed, compensation being paid partly in cash but mainly in bonds, and ownership is to be conferred on the tenants subject to the condition that the tenants became members of co-operatives. Tenants on estates of 7 hectares and less are to have complete security of tenure and to pay fair rentals not exceeding one-fourth of the gross produce. A new department has been established for the implementation of the law and the army has been asked to assist in securing declarations of holdings from landowners. With the implementation of the law, it is expected that about 40 per cent of tenants may become owners of their holdings.

4. *Some policy problems*

Examination of past experience with land reform in the ESCAP region shows that, although Governments are committed to such programmes, their effectiveness has been limited. There are many interrelated causes of this situation: the lack of political will on the part of the Governments concerned; the economic, social and political power of landlords; the lack of bargaining power of the rural poor; the loop-holes in the law; the lack of adequate administrative machinery for enforcement; the pro-landlord bias in the administrations concerned; the absence of land records indicating who is cultivating what lands; and the lack of supporting services, such as legal services, credit and inputs, for the rural poor.

Of overriding importance in a successful land reform programme is the political factor. "The concentration of control over land provides a power base for many groups in the (developing) countries. Land is a symbol of authority and a source of political power . . . A meaningful land reform programme will inevitably destroy or limit the power base of many persons."[9] This is the basic cause, which, despite the continuing professions of egalitarian policies on the part of leadership, accounts for the lack of will on the part of the Governments to pursue reforms which would adversely affect the power of the large landowners. Once a Government is politically committed, it will promulgate the right laws, develop an adequate administrative machinery and get a record of tenancies prepared. However, unless the character and composition of the political élites change and the rural poor are able to obtain adequate political representation, Governments will not have the will to bring about a major change in the agrarian structure. Many countries have passed legislation for land reform but few have carried it through and "these reforms were only implemented when there was a change in government in circumstances that favoured drastic change".[10]

A second factor of importance in making reform effective is the development of the beneficiaries as a political force in order to ensure that implementation does in fact take place. This will involve the harnessing of the beneficiaries together into some form of rural organizations to ensure their representation in the process of decision-making and implementation. The question of the establishment of associations of small farmers is discussed in detail in chapter 7 of this *Survey*. Japanese experience in developing tenants' associations to press for reform is useful, but it should be noted that, in Japan, tenants' representatives were able to assert themselves in the land commissions where they had the strong support of their own associations and also the support of a sympathetic rural administration.

In the implementation of land reform, as in other socio-economic programmes aimed at their benefit, it is important to secure participation of the rural poor through their own organization and through arrangements like land commissions, but this participation should supplement rather than supplant action by the rural administration. The role of the rural administration in this regard is crucial.

Unfortunately, in most countries of Asia, the rural administration has not generally been sympathetic to the poor for several reasons. Firstly, rural administrative officers are recruited mainly from among the rural élites, especially at the senior, effective levels, and this leads to their opposition to land reforms or any movement which adversely affect the rights and privileges of the rural élites. Secondly, since laws and traditions are heavily weighted in favour of the existing social order based on the inviolability of private property and the existing property relationships, it is only natural for the bureaucracy to develop a bias against any movement which aims at altering the existing social arrangements.[11] Thirdly, the bias in administrative services arises not so much from their link with the rural élites as from their association with the political élites ruling a country, who set the policy direction and exert influence on administration in favour of the rural élites. Those who hold this view refer to recent experiences in West Bengal and Kerala (India) where the rural administration was able to carry out faithfully the directions set by these two State Governments whose policies were directed against the interests of the rural élites.

---

[8] R. Herring and M. Ghaffar Choudhry, *op. cit.*, pp. 245-279.

[9] IBRD, *Land Reform*, World Bank Paper, Rural Development Series, July 1974, p. 7.

[10] *Ibid.*

For whatever reasons, bias in the rural administration tips the scales heavily against any reform which aims at improving the condition of the rural poor, more so those aimed at changing the existing social order. It is important, therefore, to devise special measures to mitigate this bias in the rural administration.

It is also important to recognize that "land reform is rarely undertaken without considerable upheaval and loss of production, although there is evidence to suggest that these costs can be kept small and temporary. The restructuring of land holdings is often accompanied by the destruction of traditional delivery systems for input needs and marketing, since these systems are almost always tied to the operations of the larger farmers who are dispossessed. Because of this ... land reform has often proved costly in terms of lost output"[12] even though, as we have argued, there is no inherent productivity disadvantage in small farms compared with large farms. It is necessary therefore to produce, concurrently with the implementation of land reform, services for small farmers to replace those that will be disrupted by the restructuring of land holdings.

It should not be expected that the reform measures discussed here have or will have any significant impact on the size of operating farm units in the ESCAP region. Over time, with rapid population growth and lack of alternative employment opportunities, it is expected that subdivision of existing farms will continue and farm size will decline. This often leads to problems of fragmentation of farm units, of whatever total size, with resulting obvious inefficiencies. Land reform measures have also, through land consolidation, endeavoured to deal with this situation. The remedy lies in the mutual exchange of parcels of land and restructuring of holdings. Several countries, notably India, the Republic of Korea and Pakistan, have acquired considerable experience in this field.

Land consolidation is an important factor in agricultural development. Apart from improving land management and reducing cost of cultivation, consolidation and restructuring of farm units is highly desirable to improve water management and development of ground water. It does not usually raise political controversies if it helps small, middle and large farmers alike, more so the latter. Its success, however, depends upon efficient administration and good land records. Every farmer is certainly attached to his piece of land, but land consolidation confers such strong economic advantages that, once demonstrated, it is not difficult to persuade farmers to agree upon a plan of mutual exchange of parcels of lands. Once the programme has been demonstrated successfully, a measure of compulsion has been found to be feasible and acceptable. However, prerequisite to land consolidation is a stable land tenure structure, so that all the parcels of lands in which a farmer has acquired stable, permanent rights as owner or tenant are consolidated in his holding.

5. *Conclusion*

In quantitative terms, the land reform legislation in the region has been impressive, although its total impact has been much less than desired. The regulatory legislation has been mostly ineffective. The abolition legislation met with comparatively better success, although in both cases there were serious problems of implementation, such as absence of land records indicating who owned or cultivated what lands, lack of adequate administration for implementation, gaps in the legislation, dominance of landlords in the social and economic hierarchies, lack of "group action" by the beneficiaries of the legislation in the absence of small farmers' associations, and inadequate supporting services. In societies which are dominated by land interests at all levels — in the administration, the judiciary and the legislatures alike — it is inevitable that there should be a pro-landlord bias. The lack of political will on the part of the Governments and of bargaining power on the part of the rural weak who were the intended beneficiaries of the reform constituted major hurdles to the effective enforcement of the reforms in several countries.

---

[11] This observation was made by D. Bandhopdhyay, Joint Secretary, Government of India, in his statement at the Workshop on Organization of Peasants in Asia, Bangkok, November 1974.

[12] IBRD, *op. cit.*, p. 7.

On both equity and economic grounds, however, land reform must be an integral part of an effective programme for the benefit of small farmers. A fresh dynamism must therefore be developed in this field in countries of the region. The programme will consist of three items: the redistribution of land ownership, tenancy reform providing security and fair rentals, and land consolidation where necessary.

The programme, however, has three major prerequisites. The first is the carrying out of cadastral surveys and the issuance of title deeds. However, cadastral survey is a time-consuming process and requires a great deal of trained personnel and equipment. Pending cadastral survey, issuance of provisional titles based on rough and ready measurements of land holdings might be considered as an interim approach. A word of caution needs to be added. It has been observed that, unless close supervision is exercised, the process of cadastral survey is liable to abuse; influential persons can avail themselves of the opportunity to have lands registered in their names, thus depriving innocent farmers of their lands. The second prerequisite is the organization of the beneficiaries both before and after the enactment of the reform into politically powerful associations. The third is the establishment of appropriate input supply systems and marketing arrangements to meet the needs of the beneficiaries of the land reform. These issues are discussed further in chapter 7 below.

The creation of an egalitarian farm structure will have a significant effect not only on production but also on other rural institutions. It allows for the emergence of new leadership, encourage co-operative action and increases the small farmers' ability to expand their control over marketing and other activities.

Chapter 7.

INSTITUTIONAL REFORM

1. *Introduction*

If the past 25 years of efforts to foster economic development in third world countries has taught us any lesson, it is that an exclusive focus upon the purely economic factors affecting a country's development will prove unsuccessful. While macro-economic indices of growth may show increases in a country's GNP and average *per capita* income at the same time in many countries of the region the gap continues to widen between the rich and the poor, between the educated and the illiterate, between those with access to the best of medical attention and those still suffering from age-old diseases, between those who are clearly a part of the mainstream of a country's economic progress and those who remain unseen, unheard and disregarded. In short, in contradiction to the evidence concerning modernization and economic progress, there exists a population, annually growing in size, which is the poor.

Recognition of this potentially and increasingly explosive situation has increased recent awareness of the fact that economic development strategies in the past have often benefited only a small stratum of people in developing countries and that a wide variety of changes of a social and political nature need to occur in order to bring the fruits of development to the many still-disadvantaged sectors of a society.

From the foregoing sections of this *Survey*, it is evident that one important, definable group which has been largely untouched by development is that of the small farmer. It should also be evident from the preceding parts of this *Survey* that all efforts to improve the condition of the small farmer will fall gravely short of expectations unless a broadly-based, fundamental transformation in his social, cultural and political milieu takes place.[1] Technological means exist to foster significantly increased production on small farmer plots and the potential contribution of small farmers to the market economy has been conclusively demonstrated in several developing countries which have conscientiously sought to encourage a labour-intensive agricultural base. Yet institutional obstacles still existing in most developing countries have effectively militated against tentative and largely abortive efforts to involve the small farmer as an active participant in the planning and implementation of developmentally significant activities.

This chapter of the *Survey,* therefore, will explore some of the major reasons for the neglect of the rural poor, including small farmers. It suggests steps which can be taken by member Governments to overcome this pervasive problem and delineates some of the likely social and political ramifications of any concerted effort to reach the small farmer. In so doing, it suggests that no analysis of the problems and prospects of reaching the small farmer makes sense unless the social and political ramifications of economic development programmes are thoroughly explored and understood. It also suggests that no effort to develop small farmer agriculture is feasible unless it expects, over time, to effect a thoroughgoing reform of out-of-date social, political and economic institutions in rural areas which at present suffocate innovatory rural development strategies or pervert them to the benefit of established rural élites.

Fundamental to the analysis which follows is the precept that, while the group delineated as "small farmers" constitutes an analytically useful target group for economic policy purposes, in many other ways the lives of small farmers are inextricably intertwined with other rural peoples. In many instances, a package of activities can be designed for small farmers *per se,* but, unless a co-ordinated, and largely simultaneous, series of reforms is set in motion which affect the total social, cultural, economic and political milieu in rural areas, the small farmer is likely to continue to be relegated to a position of economic and political subordination to rural élites, supported (as they directly or indirectly are) by those who wield political and economic power in the cities. Development is a multifaceted process involving a variety of mutually reinforcing and hopefully self-perpetuating changes which can be expected to affect, in various ways, an entire society. To attempt to separate out one group for special emphasis or preferential treatment, without recognizing that attention must at the same time be paid to other groups which will affect and be affected by such activities, is not feasible.

---

[1] Dale W. Adams and Walter Coward Jr., *Small Farmer Development Strategies,* A Seminar Report (New York, A.D.C., 1972).

It is equally important to note, as pointed out in chapter 2 above, that any emphasis upon the small farmer or, for that matter, on other seriously disadvantaged segments of society, need not suggest a trade-off with economic growth targets. It is true that economic theories have been proved inadequate through their neglect of political and social forces which have enabled small groups in a society to siphon off for their own benefit the rewards of growth which were supposed to accrue to the entire society. However it is not necessarily economic theories, *per se,* that have been proved wrong, but rather that social and political forces in ESCAP developing countries, reinforced by government administrative elements, have managed to pervert them to serve particular interests. For reasons set out below, many Governments in the region have failed in the past to address themselves meaningfully to the problems of rural poverty. Nevertheless, as chapter 1 noted, there are signs of a renaissance in thinking about rural poverty and in the devising of strategies and policies to deal with it. Old attitudes and policies are gradually giving way to an alternative approach to rural development. This approach seeks to combine growth with social justice; deliberately attempts to mobilize the energies of the poor in a country's development, thereby ameliorating political instabilities; and attempts to relieve some of the conditions of poverty without sacrificing economic growth.

2. *A new approach to development*

To achieve these objectives, a new approach to development is achieving considerable attention in this and other regions of the world, as well as among development theorists and practicioners in donor countries.[2] The theory has four principal characteristics.

First, it emphasizes the participation, in both the planning and implementation of development-oriented activities, of those whom it is intended that development should benefit. In so doing, it recommends what is called "bottom-up planning" as a substitute for much of the "planning from above" by the central government which has characterized a major part of development planning in the past.[3] Presuming that people themselves are, in many aspects of their lives, the best judges of what their needs, desires and capacities are, the theory suggests that outsiders, whether foreigners or a domestic urban educated élite, cannot help but impose on rural peoples some of their own values which are culturally irrelevant or economically ineffective. However well-intended, unless development planning takes fully into account the cultural predilections, the indigenous social situation and the local political structure, factors which the people themselves can best appraise, then development programmes are bound to fail. Experience in the region indicates that this is largely what has happened.

Second, it entails an integrated approach so that the several different aspects impinging on the development process are tackled together.[4] Just as the successful utilization of high-yielding varieties requires the simultaneous availability of several different types of input (including seeds, fertilizers, irrigation and credit facilities), so, too, does the successful implementation of rural development demand attention to local government structures as well as to the hopes and aspirations, needs and capacities to individuals for whom development is intended. Such factors have been often neglected in the past for good reason: they involve contention and controversy as well as being complicated by local and regional diversities. Yet it is the failure to address these factors which has been at the heart of many vain efforts to achieve lasting rural development.

Third, rural development activities need to focus directly on the rural poor which has been bypassed and neglected in all but scattered welfare projects of a largely *ad hoc* variety. Believing that the benefits of development, as measured by macroeconomic indices, would eventually "trickle down" to the masses, propounders of many past rural development policies have given primary attention to the encouragement of capital-intensive, large-scale farming. The results have proved other than expected and the "trickle down" theory has been discredited by the fact that its use has served only to widen and reinforce the gap between the rich and the rural poor. Thus, the new approach seeks to develop programmes which directly reach and benefit the poor, not only because they should on grounds of simple equity, but because it is politically opportune and economically sound. In this regard, particular attention is being given to the small farmer who, it is now clear, is in a position to make a distinctive contribution to his country's economic growth, but can be reached only through specially designed programmes.

---

[2] See for instance, Edgar Owens and Robert Shaw, *Development Reconsidered* (Lexington, Massachusetts, Lexington Books, 1972); Bruce F. Johnston and Peter Kilby, *Agriculture and Structural Transformation* (London, O.U.P., 1975), chapter 4; United Nations Asian Development Institute, "Towards a theory of rural development", Bangkok, August 1975 (unpublished); Philip H. Coombs with Manzoor Ahmed, *Attacking Rural Poverty: How Non-Formal Education Can Help* (Baltimore, The John Hopkins University Press, 1974); G. Hunter and A. F. Bottrall, ed., *Serving the Small Farmer: Policy Choices in Indian Agriculture* (Hyderabad, National Institute of Community Development, 1974); *Papers and Proceedings of the Regional Follow-up Seminar on Field Workshops on Small Farmers and Landless Agricultural Labourers,* FAO, Asian Survey in Agrarian Reform and Rural Development, Bangkok, 1974.

[3] The distributive impact of new technologies which has tended to favour the wealthy and powerful is in great part a function of where — and with whom — political and economic power rests. It is the contention here that, if currently disadvantaged peoples are given a more equitable share of political power, beginning with institutional reforms at the local level which facilitate "bottom-up planning", they will be in a position to redress (as just one example) existing imbalances in the distribution of new technologies.

[4] See discussions by A. T. Mosher in *Getting Agriculture Moving* (New York, Prager, 1966); *Creating a progressive Rural Structure* (New York, A.D.C., 1969); and *To Create A Modern Agriculture* (New York, A.D.C., 1971).

Finally, for development to become institutionalized, it is essential that the independent organization of rural peoples be fostered and that this be effected simultaneously with a devolution of power from central governing institutions and existing organs of rural administration upon local self-governing bodies. Most of the existing local organizations are either arms of the central government or controlled by local élites, neither of which represent the interests of the rural poor and both of which are viewed with suspicion by peasant farmers and the rural landless. To overcome long-standing attitudes of impotence among the poor, it is important that they not only participate as members of rural organizations; they must be allowed to attain leadership positions, not by appointment but by election of their peers. However, so long as the only organizations to which they can belong are those which necessarily include members of the local élite, who are wealthy, socially powerful and/or politically practised and astute, they will forever be relegated to the role of followers. In a market economy, development requires more than the passive acceptance of one's allotted role; the rural poor must be allowed to develop organizations which exclusively serve their interests and which they run themselves, for better or for worse.

This new approach to development, embodying these four principal characteristics, has serveral advantages over previous strategies of rural development.

First, it takes fully into account the non-economic factors of development by analysing the problems and prospects of development in geographically and socially defined areas from a multidisciplinary point of view. Social and political obstacles to the acceptance of high-yielding varieties are analysed no less rigorously than economic impediments, and co-ordinated actions to meet institutional prerequisites of economic growth at the local level are undertaken no less concertedly than are efforts to determine appropriate governmental pricing policies to enhance and encourage small-scale, labour-intensive agricultural activity.[5]

Second, it seeks to integrate a variety of inputs, so that various institutional reforms and government economic policies work hand-in-hand to effect desired changes in the rural milieu in which development is to occur. The piecemeal approach which expected one change necessarily to precipitate other desired changes through a kind of "domino" effect in an area, is discarded and replaced by one of giving simultaneous attention to several elements influencing rural reform. In this sense, for example, multi-purpose co-operatives which can provide local farmers with a variety of co-ordinated inputs may be a more effective device for rural reform than single-purpose co-operatives.

Third, it gives to the intended beneficiaries of development the primary responsibility for conceiving, implementing and evaluating development programmes. Even with good intentions, central governments cannot understand and cope with the complicated social, cultural and political processes in local areas which determine whether programmes of economic development will succeed or fail. Rural administrators are necessarily bureaucrats who must follow general patterns of conduct and set procedures which often makes it difficult for them to respond to local variations, except when they are bullied by the rich and powerful who know how to reap the advantages of government programmes. By devolving decision-making power upon local self-governing bodies, and also organizing the various groups of allied interests in local areas, the rural poor as well as the rich will be enabled to administer their own programmes, utilizing the services of rural administrators in such ways as they find most needful.

Fourth, the new approach to development builds into all programmes a significant measure of flexibility which they have usually lacked, and enables priorities to be established on the basis of an intimate knowledge of varying local conditions. Within the context of parameters set by national goals and policy objectives, local administrators seek to support local aspirations and follow locally determined priorities. Thus "bottom-up" planning need not cause divergences from national policy goals — or be inconsistent with setting them; rather, it gives rural people a personal stake in the achievement of these same goals by their participation in planning activities which most clearly meet urgent local needs and which are attuned to their particular aspirations.

---

[5] For an elaboration of the viewpoint, see *Strategies for Small Farmer Development: An Empirical Study of Rural Development Progress*, a report prepared for the Agency for International Development, May 1975. This study makes a quantitative analysis of 38 rural development projects in Latin America and Africa and concludes (p. 52) that "After studying the local environment, project designers can most strongly influence potential success in rural development projects by generating various types of local action — small farmer involvement in project design and implementation and his commitment of resources."

Finally, it provides an institutionalized feedback procedure, countering the rural administrator's inclination to conceal mistakes and exaggerate successes, while providing institutionalized access to a joint articulator of grievances for both rural people and government officials. Under conditions now obtaining in most rural areas, the remoteness of the Government prevents rural people from making their concerns known in an organized way; it also militates against the Government exercising effective control over its own administrators, ensuring their attention to the rural poor who now "count" politically. By emphasizing the encouragement of local private organizations and rural self-governing or quasi-representative bodies, all rural interests can at least have a voice in the affairs which most directly effect their lives.

3. *The relevance of non-economic factors*

A peculiarity of dealing with rural people throughout the world is that they seldom seem to act in accordance with the preconceived notions of planners. Although it is often true that value is attached to farming as a "way of life", it leads to behaviour which seems to confound the expectation of economists that all men act in a rational profit-maximizing manner. Whether landed or landless, rural people may seem to be unresponsive to prospects for any change in their lives, and those who would seek to change them are prone to encounter difficulties which they ungenerously attribute to certain indelible traits of rural people.

Often included in this list are: a distrust of other persons, a reputed disinclination to innovate, a fatalistic view of human potentialities, a presumed low level of personal aspirations, an unwillingness to defer consumption and immediate gratifications, an overemphasis on family relationships, a short time perspective, a stultifying dependence upon government or other superior authority, a local orientation, and an inability to empathize with others.[6]

Such attributes as these are clearly products of rural groups' social, cultural and political milieu. Although far from indelible, they are difficult to erase and, indeed, as proper investigation may reveal, they are likely to represent an admirable and remarkable canniness in dealing with existing situations. What is more remarkable is the frequent failure of planners to take these attributes appropriately into account in planning rural development. In order to be willing to join a co-operative, whatever its indisputable economic benefits, a farmer may have to overcome deeply-embedded reasons for distrusting those who are not of his family. Willingness to try a new seed variety may require overcoming a sensible disinclination to take risks, particularly when it is encouraged by a distant government and when a lost gamble would mean starvation or disgrace. If he is to save and defer present consumption, however rational this may be on purely economic grounds, the farmer must reckon with the likelihood that someone will abscond with his savings or eventually tax them away. Willingness to attempt to rise on the local socio-economic ladder and to aspire to acquiring such things as a bank account, a bicycle, or three times his present holdings of land, must be preceded by some assurances that the bank will not close, that the bicycle can be serviced, and that the local money-lender will not end up with those extra parcels of land.

Coping with the seemingly irrational impulses of rural people requires, in the first place, recognition that it is not a lack of rationality which accounts for their behaviour.[7] Their fear of governmental authority, together with their dependence upon it, is a product of the role which the Government has traditionally played in their lives. To expect a wary peasant to expect dramatic and permanent change in this role because a local government official passes out free seeds or sacks of fertilizer for demonstration purposes, or offers technical assistance in building a new coffer dam, is not realistic. Such transient events, however beneficent, do not lessen the scepticism of peasants that such bounty will soon abound to the benefit of someone other than themselves. The Government is seen to control and collect; it has not often had much to do with improving the quality of their lives, and farmers may reasonably doubt that it should now be otherwise.

Plans to provide ready access to credit for peasant farmers by the promotion of farmer co-operatives seldom take adequate account of the peculiarities of the local social structure. Often, as indicated elsewhere in this *Survey* co-operatives have benefited the relatively rich and thus strengthened their position compared with that of smaller farmers. As well as having the disadvantages of less literacy and experience in managing and dealing with complex organizations, the poor are handicapped by their time-honoured rituals and customary practices which cause them to defer to the rich and which may dictate who should be "elected" to any local position of authority. This alone can undermine the ideological purity of a co-operative as well as lead to (often well-founded) accusations that the wealthy get more than their fair share from its operations. In addition to the other reasons for this, discussed below, it should be noted that a democratically organized co-operative cannot be super-imposed on traditional rural society without either diluting the "purity" of the co-operative concept or causing serious disruptions to the complex established social order.

---

[6] For one exposition of this type of list, see: Everett M. Rogers, "Motivations, values an attitudes of subsistence farmers" in C. J. Warton, ed., *Subsistence Farming and Agricultural Development* (Chicago, Aldine Press, 1969), pp. 111-135.

[7] A number of examples are provided in Guy Hunter, *Modernizing Peasant Societies* (London, Oxford University Press, 1969).

One particular societal concern which may undermine the effectiveness of rural development efforts is the problem of leadership formation. It is necessary to find ways to provide a community with new leadership, attuned to the needs of the poor, skilled in innovatory managerial and technical areas, and motivated to represent the interests of the small farmer and other disadvantaged functional groups in the community. A common complaint of developmentalists is that, once a leadership vacuum arises in rural areas, it is quickly filled by the financially or socially prominent, usually with the tacit consent of the poor. This causes new organizations to assist groups other than the one it was intended to serve.

The heterogeneous and fragmented nature of rural populations compounds this problem. A village may be depicted as a communal society in which opposing interests are solidified and only a minimum of effective communication takes place between groups within it. Under these circumstances, it is very difficult for an individual to represent more of the population than his own ascriptive segment, which may be based on family, religion, race, social class, caste or some combination of these. The individual mobility fostered by the processes of modernization is expected to break down such communal barriers and traditional status classifications — and to alter traditional village factions — in order to enable new leadership based on skills or functional attributes to emerge. However, this expectation may be denied by the question of whether social mobility can precede changes in leadership. This dilemma highlights a serious social problem encountered by development planners: how can new leadership elements be identified and given the opportunity to prove themselves, or, alternatively, how can traditional élites be encouraged to assume new leadership roles consistent with the necessary institutional change and rural reconstruction?

Escape from the dilemma comprises two elements: (a) there must be an institutional restructuring of rural society, and (b) non-formal educational opportunities must be made available to rural people. These elements are discussed in the following two sections.

(a) *Institutional prerequisites*

There are four basic necessities of a rural institutional infrastructure designed to assist the small farmer: (i) it must ensure for him access to needed resources of technical advice and information as well as the co-operation of his peers; (ii) it must produce leaders who willingly represent his interests vis-à-vis other local interests; (iii) it must devolve ultimate responsibility for decisions upon him rather than outsiders; and (iv) it must place critical rural institutions at a level above that of the village in order to give each institution an adequate resource base and to break the rigidity of traditional village-level power structures.

In the first place, there must be a proliferation of both competitive and non-competitive, public-sector and private-sector institutions sufficient to provide target groups (e.g. the small farmer) with easy access to the variety of organizations he needs to serve his various interests. The goal of rural development is to improve the quality of life of the mass of people residing in rural areas, rather than just that of urban dwellers who need cheap food or, (viewed in macro-economic aggregative terms), society as a whole. To raise rural people's quality of life in the interests both economic welfare and social justice entails giving attention to the many different facets of their lives — health and nutrition, education, cultural interests, civic affairs, no less than their occupational concerns. Aside from the organizational problems and administrative complexities which would arise, a single organization expected to address the many different areas of local interest and needs would not be able to give due regard to the different levels and intensities of interests among the fragmented collection of people who are found in a given geographical area. In order to avoid regimentation and overcome bureaucratic inertia, it is necessary to have a variety of organizations, responsive to their own (often overlapping, but sometimes entirely separate) memberships. They should be allowed to flourish and, where possible, they should be fostered and nurtured by outside assistance.

Moreover, emphasis on the number of organizations rather than just the number of functions which organizations must perform, usefully focuses attention on the need for the expansion of the number and variety of leadership positions in any given area. As concisely put by Owens and Shaw,[8] a maxim to be followed in effecting rural institutional reform is that "the number of leadership positions should exceed the number of traditional leaders". By this device, not only are the multitude of differentiated developmental functions in rural areas better served, but organizations are forced to draw their leadership from a broader range of local talent than hitherto.

---

[8] Owens and Shaw, *op. cit.*, p. 27.

An obvious corollary to this maxim is that the number of leadership positions should exceed the number of organized interests of the traditional élite. The interests of the rich and the poor seldom coincide; as well as some overlapping interests, others which are mutually exclusive can be identified in any rural population. In a new situation where each organization represents different interests in supervising different activities, established leaders will tend to gravitate towards those organizations (and those positions within organizations) which best serve their own particular interests. This leaves other leadership positions to individuals who have not previously held positions of leadership, and these will tend to be in areas which are of special concern to hitherto disenfranchized groups. The vacuum provides motivation and opportunity for new leaders to surface, to gain experience, to be judged as to their performance, and eventually to enter into competition with traditional leaders for local positions of power. The filling of competitive positions, whether by election or appointment, in accordance with known skills and proved performance rather than traditional loyalties and customary practices, should undermine the rigidities of the social, political and economic structure of rural areas.

It is also necessary that the institutions to be encouraged should located, not only at the village or *barrio* level, but also at a level where the interests of peoples from several villages and a wider geographical area are combined. There are two particular disadvantages to village-level institutions:[9] they tend to reinforce traditional loyalties and to be diverted by irrelevant factional disputes; and they tend to be administratively inefficient. Although there is clearly an important role to be played by village-level committees and other organizations which seek to meet each village's particular requirements, it is critically important that these be linked with a level of organization one step above that. Thus, it may be at the township or county level that the principal decision-making authority would be vested, administrative services provided, and technical assistance located. While planning would take place in county or district level forums in which village representatives would fully participate, it is at the village level that these plans are implemented and strictly local matters attended to. In this situation, the institutional arrangement which emphasizes township or county level organization would help villages to interrelate with others beyond the horizon of their traditional purview, and leaders would be required to compromise parochial interests with those of a broader geographical segment of a country's rural population. Gradually, customary practices and traditional disputes would give way to broader-based development interests.

Perhaps the most important general characteristic of needed rural institutions is that they should place responsibility on the shoulders of those for whom they are expected to provide benefits. Lack of faith in the intelligence and common sense of the peasantry is one of the greatest shortcomings of development literature. Regrettably it also pervades the thinking of some central government ministries and continues to influence rural development programmes. Instead of recognizing that authority without responsibility has never worked, rural development programmes persist in expecting rural people to express "felt needs" to village-level government extension workers, who are then responsible for making the ultimate decision as to what is done or relaying these "felt needs" to higher authority for appraisal and adjudication.

The review process by higher authority becomes confusing to villagers as their "felt needs" are appraised and monies allocated. As Owens and Shaw have observed, the result is that "the villager is not certain whether he is deciding or recommending, whether he is being trusted or overseen, whether he is planning his own future or simply doing as he is told. . ."[10] Unless the villager is clearly given to understand, and eventually learns from experience, that it is he who is making the decisions and that he must be responsible for his own ineptitude or perceptivity, there is little chance for new local leadership to emerge, for viable local organizations to develop, and for local projects to effect meaningful reforms at the local level and to encourage further local efforts at rural reconstruction.

The devolving of decision-making authority upon local self-governing units does not diminish the role of the central government in effecting local development, however. In fact, it tends to expand that role and, more significantly, to refocus it towards the provision of technical and managerial advice, the rigorous enforcement of established and widely promulgated standards of conduct among officials of local organizations, and the creation of a climate conducive to institutional change in rural areas. This requires promotion of conditions to encourage the formation of organizations which enable small peasant farmers to gain easy access to needed information and knowledge and other relevant inputs, which allow new leadership to become evident, which permit the devolution of decision-making authority upon village-level and county-level governmental and quasi-non-governmental units, and which vest responsibility for making decisions of developmental significance on the people themselves.

---

[9] Existing village and subvillage informal groupings and solidarity patterns cannot simply be dismissed or rendered impotent. Undoubtedly they will persist long into the future, providing an informal and personalized device for the articulation of interests and the diffusion of information no less than a base upon which new and more formal instruments of co-operation can be built. A measure of development, for good or ill, is the degree to which face-to-face contact among people is initially supplemented and increasingly supplanted by impersonal methods of communication, as well as the degree to which traditional bases of authority give place to new leadership based upon functional interests rather than ascriptive loyalties. To the extent that existing, and perhaps long-standing, groupings serve functional interests (such as through irrigation arrangements or mutual aid societies), they may be expected to continue to perform a useful service in local areas despite the growth of new institutions and more formalized arrangements at and above the village level.

[10] Owens and Shaw, *op. cit.*, p. 22.

(b) *Educational needs*

There is one special area of responsibility, however, which must continue to be largely retained by agencies of the central government and other non-local institutions, at least for the time being. This is the provision of appropriate knowledge and skills — principally through instruments of non-formal education — to the small farmer and other less-advantaged rural people.

Yet this, too, requires the refocusing of the methods and approaches previously pursued by educational (and other) central government ministries in a co-ordinated effort in order to provide substantially different types of information and skill training than has generally occupied the attention of planners.

For many years, educational planning in developing countries has tended to be preoccupied with the formal educational structure. Similarly, donor agencies have tended to direct their assistance towards "bricks and mortar" projects, such as the building of schools and teacher-training institutes, and towards the promotion of institutions of higher learning. Although these facilities are important, the emphasis given to them has led to a serious neglect of education of the type relevant to the needs of small farmers. Thus, if development among small farmers is now to be encouraged, some special attention must now be given to their particular needs.

Most formal educational structures in ESCAP developing countries are deficient in two respects: (i) they tend to be the same for all groups in a country, and (ii) they fail to teach practical skills of immediate relevance and use. Irrespective of the actual or potential status in life of pupils, primary education inculcates certain general beliefs which are important to the stability of a nation, as well as such basic skills as reading, writing and elementary arithmetic. As and if the pupil ascends the educational ladder, he learns more and more theory, whether it be how to read better or, in technical institutes, how an internal combustion engine is designed. The tendency is not to focus on the *uses* of literacy, or the *ways* to use fertilizers, or *how* to change a fan belt. If textbooks are available for use in local schools, they tend to use stories and examples often unrelated to the life of the reader; the textbooks are not used as vehicles for the dissemination of useful knowledge about matters with which the reader is familiar.

One reason for this is that to produce relevant books would be expensive. Moreover, however willing external donors may be to provide assistance, the design of educational textbooks tends to be a matter of national importance which should not be even superficially delegated to foreigners who are presumed to have ideological biases. Another reason is that conservative educational planners have found administrative difficulties in dovetailing their responsibilities with those of other ministries, such as agriculture, and are prone to think that the replication of foreign formal educational structures and a highly "academic" curricula is in the best interests of their country.

Far-reaching reforms in the structure and content of a country's educational system may form a significant element of an integrated rural development strategy. Apart from formal education provided nationally, reforms should include the establishment and expansion of non-formal education opportunities. In both formal and non-formal structures, the emphasis must be on the problem-solving relevance of the curriculum to the everyday life of the student.

Basic to any educational reform designed to benefit the small farmer is an emphasis upon the utilization of skills to improve agriculture. This does not imply that the purpose of education is to prevent people from moving into preferred occupations; it rather suggests that a small farmer development strategy should help small farmers to improve their lot *qua* small farmers, if only to prevent their falling into the more dismal ranks of the unemployed landless. This entails providing them with the tools of practical information on topics of use to them in their everyday lives.[11]

At present, the formal educational structure in most countries does not do this, nor can it hope to do it in the foreseeable future. Not only are there overwhelming administrative constraints, but curriculum adjustments would likely be too costly and too slow in occurring. Also, traditional methods of instruction — in the classroom, not the fields; by those psychologically divorced from the practical needs of villagers; and adhering to a process of one-way teacher-to-pupil communication, reliance on textbooks, rote memorization and the oral repetition of lessons — fails to provide a conducive environment for conveying by word and deed the ways of using fertilizers, methods of personal hygiene, the processes of local government, or the skills of making a living in specialized, locally-performed crafts. Nor does it encourage criticism of the *status quo* or the development of thought processes which place a high value on imagination, innovation and the individual solution of practical problems.

---

[11] Reference is made to a recent study prepared for UNICEF which describes certain "minimum learning needs" of people who are to participate in the social, political and economic life of their country. See, Philip H. Coombs, and others, *New Paths to Learning for Rural Children and Youth* (New York, International Council for Educational Development, 1973). See also, Eugene Staley, "Towards a more work-oriented schooling", *Economic and Political Weekly*, vol. VII, Nos. 31-33, Special Number, August 1972, India.

This *Survey* has discussed some of the obstacles faced by the small farmer in gaining access to innovatory agricultural techniques and in applying these effectively in his fields.[12] In both regards, non-formal educational devices were referred to as essential elements in any solution to these problems — unless the slow and inequitable process of the "natural" diffusion of innovation is to be relied on. A small farmer development strategy should ensure that the variety of rural institutions which develop new techniques and agricultural practices and are responsible for their dissemination to potential users must focus special attention on techniques and delivery systems for the small farmer.[13] Otherwise, it is the relatively rich who tend to benefit first and are thereby given the opportunity and additional resources necessary to enhance their status vis-à-vis the poor.

Effective non-formal education involves two principal elements often overlooked by planners of such programmes: far greater emphasis needs to be placed on the design and application of instruments of self-education and peer-group education than has traditionally been the case; and horizontal and vertical linkages must be established with other related rural development activities and programmes.

A distressing failure of many agricultural extension programmes has been that outsiders are commissioned as the principal agents for the transfer of technology to the farmer. The rural extension workers are often unacquainted with the social and political structures of individual villages, psychologically oriented toward keeping their feet dry and their hands clean, educationally prepared to provide advice to large-scale farmers and to encourage agricultural mechanization, personally disposed to utilize their time as efficiently as possible and thus to focus attention on large users of their particular input, and socially prone to frequent the habitats of the more efficient, literate, and socially prominent. For these reasons they tend everywhere to neglect the small farmer and are ill-equipped to do otherwise.[14]

Correspondingly, from the perspective of villagers, the outsider is usually considered a hostile agent, of whom they have a well-deserved and long-standing suspicion. As a government agent he is not expected to be concerned with their welfare; as an educated man he has divorced himself from rural pursuits; as a man whose origins are in another village he is not to be trusted.

To overcome these problems, two fundamental changes are necessary. First, the curriculum content, method of instruction, and selection of students at agricultural schools and technical institutes must be changed to meet the practical agricultural requirements of farmers and the need for rural extension agents who are psychologically and educationally prepared to serve a variety of target groups within rural populations. They must be trained as teachers first and technicians second, rather than the reverse as at present.[15] There is also a need to design ways to select appropriate villagers as local agents of agricultural change, with whom extension workers would primarily but not exclusively relate, for the training of local representatives to train others in their own villages and *barrios*, thereby catalysing new local leadership attuned to the particular interests and concerns of special classes and interest groups at the local level.[16] Institutional arrangements through which this can be accomplished are suggested below; suffice it here to say that such institutions and organizational arrangements should be consistent with the organizational prerequisites cited above, necessitating institutional reforms at both the county and the local level.

---

[12] See chapter 3 above.

[13] For a discussion of agricultural extension and education, see Harald Stier, "Extension service, education and agricultural development", *Agricultural Policy in Developing Countries*, ed., Nural Islam, Halsted Press, 1974; for use of indigenous culture in delivery systems, see N. J. Colleta, "The use of indigenous culture as a medium for development: The Indonesian case" (mimeo.), Departmen Pendidikan dan Kebudyaan, Badan Penelitian dan Pengembangan, Pendidikan dan Kebudyaan, 1975.

[14] See the discussion in chapter 3 above.

[15] This is not meant to disparage all agricultural colleges in ESCAP developing countries, as changes are taking place in several countries. Yet, by and large, the following description of agricultural schools and their products remains accurate: "A high proportion of these institutions, with notable exceptions, are marked by (1) the low quality and excessively academic character of their instruction and heavy dependence on foreign textbooks of dubious relevance to the country; (2) a lack of practical field experience for their students; (3) a paucity of research activities and irrelevance of that which there is; (4) the neglect or total exclusion of agricultural economics, rural sociology, and other pertinent social sciences from the curriculum and faculty; (5) an indifference to the training and research needs of the extension service and to the need for refresher courses for agricultural services generally; and (6) an especially disturbing and costly feature, the lack of background and real motivation of many of their urban-schooled students for agricultural or rural careers, reflected in the high proportion (often well above 50 per cent) of their graduates who promptly escape to jobs unrelated to agriculture". Philip H. Coombs with Manzoor Ahmed, *Attacking Rural Poverty: How Non-formal Education Can Help*, prepared for the World Bank (Baltimore and London, The John Hopkins University Press, 1974), p. 241.

[16] See Owens and Shaw, *op. cit.*, pp. 126-130, for a discussion of the selection and training of village extension agents.

The second principal element of an effective non-formal educational system requires ceasing both piecemeal and sectoral approaches to rural development and integrating previously separate attacks on various facets of rural "backwardness". Such integration need not imply that a large variety of external inputs should be channelled through a single organization or institution; but it suggests that various inputs should be made available to small farmers (and other villagers) simultaneously and in a fairly well co-ordinated fashion. This clearly requires institutional linkages between organizations providing external inputs to rural areas, not only in the field of agriculture, but with respect to health and nutrition, family planning, child care, civic matters and cultural activities as well. Such linkages, to be effective, must therefore be established not only between development-oriented activities taking place at the same level of society but also with activities being undertaken at institutionally higher levels, e.g. at so-called rural service centres, county extension offices, research and training institutes, and market town-level clinics and dispensaries.[17]

The various institutional forms through which such integrated educational activities can take place need not be discussed in detail here. However, multi-purpose training centres, such as at Comilla in Bangladesh or the International Institute of Rural Reconstruction in the Philippines, provide examples of second-level institutions which are closely linked with functionally specialized village-level committees responsible to the rural peoples they have been established to serve.[18]

To enhance the effectiveness of these various non-formal educational instruments, a literate clientele is often presupposed. However, this erroneous presupposition often becomes no more than an excuse for mass literacy programmes which appeal to planners rather than respond to local needs.[19] What purpose is there in literacy if rural people have nothing to read? Integration of proposed rural inputs can obviously alleviate this widespread problem. But this requires meticulous and co-ordinated attention to creating a demand for literacy on the part of rural people by providing them with uses to which they can put their literacy.[20]

Literacy is thus no panacea for rural backwardness; indeed without complementary inputs it may be temporary and marginal in its contribution to rural development.

If supplementary rural inputs in the form of simplified written and pictorial pedagogical materials are not yet available in the several areas of rural development in which their uses are clear to rural people, then greater reliance should be placed on the gradual infusion of new materials into existing channels of non-formal education which do not presuppose literacy on the part of target groups. Oral communication on most development-oriented topics can usually be effected efficiently with rural people at traditional assemblage areas, such as in stalls and open spaces at markets and county fairs, by infusing traditional theatrical presentation with a modernizing didacticism, by utilizing puppet shows which combine amusement with the dissemination of new values and techniques, or by a wide medley of oral and visual methods of rural education, such as radio and other mass communications media, to which attention is increasingly being given experimentally in various parts of the world.[21]

Despite the broad range of available vehicles and methods for the transmission of knowledge and skills, it is of critical importance to recognize the fact that a rural development strategy that aims at involving the small farmer requires the development and use of special methods heretofore generally neglected except on a sporadic, isolated, experimental basis. Whatever methods are chosen, however, they must be designed to meet the small farmer on grounds with which he is familiar, to respond to needs he himself has discerned, to provide information in a form he can understand, to integrate it as a necessary component of a multi-functional rural development strategy, and to utilize as the prime instrument of instruction those from his own village whom he knows from previous experience he can trust.[22]

4. *The role of private organizations*

In ESCAP developing countries — no less than in many of the most highly developed countries of the world — it is difficult to draw a clear-cut distinction between a "private sector" and a "public sector". The lines of demarcation which exist are usually blurred, and meaningful distinctions are as difficult to draw as they are with respect to the concept of national sovereignty on the international scene.

---

[17] Coombs, *op. cit.*, pp. 235-237.

[18] Owens and Shaw, *op. cit.*, p. 127.

[19] *Ibid.*, pp. 132-133.

[20] When the establishment of literacy training facilities is expected to create its own demand, i.e. when literacy training is offered without the integration of needed supplementary inputs which provide local uses to which literacy can be put, it tends to result in either wastage of effort and funds as the newly literate soon forget what they have just learned, or in the precipitation of urban migration by rural people seeking further education or other uses for their newly acquired skill.

[21] Family planning programmes in some developing ESCAP countries have displayed an imaginative use of these techniques which could be emulated in other aspects of rural development.

[22] It should be noted, however, that no general rules can be followed in the selection of local intermediaries. Appropriate selection in each village or *barrio* depends upon *sui generis* conditions until the above-mentioned institutional reforms are effected to provide institutionalized means for new leadership to show itself and be legitimated by peers organized in self-serving local interest groups.

It is nevertheless important to recognize that there are certain organizations and institutions which are, can become, or should essentially be largely independent of government control. There are also certain activities which, for a variety of reasons, tend to become the primary responsibility of public or governmental bodies. Where one area of activities leaves off and another begins is a matter of strategic national importance and is largely a reflection of the ideological orientation of the government in power at any particular time and the exigencies of individual national circumstances. However, in those countries which support the market economy approach and value the notions of social pluralism and individual responsibility, the relative independence of certain social, cultural, economic and political institutions constitutes a prerequisite of orderly national growth.

The present section deals first with the role of private organizations — deferring discussion of the role of public institutions until later — for a reason which is simple, but fundamental to the argument presented in this *Survey*.

If it is the choice of Governments to pursue rural development without formenting or inadvertently precipating violence and too-rapid change in the countryside, it is essential for rural people to be encouraged to organize themselves voluntarily to pursue their several interests. To date, the results of efforts on the part of many central governments to effect rural reforms have fallen far short of expectations. An important reason is that their efforts are often thwarted by vested, usually landed interests to whom rural institutional reform constitutes a serious political and economic threat. By assisting the organization of those rural people hitherto denied voices in rural and national affairs, central governments wishing to effect rural reform would build up local countervailing forces to established power groups which control existing instruments of rural reconstruction. Such new organizations ought not to be simply arms of the central government, administered by their agents lest they also become either co-opted or indirectly controlled by local élites working in co-operation with the rural administrators. Hence, it is local, private, non-governmental, voluntary organizations, linked by confederal arrangements with similar local organizations in neighbouring localities, that should be fostered initially, or at least concomitantly with governmentally-operated activities, if rural development is to effect meaningful and long-lasting changes in the quality of life of the small farmer.[23]

Such organizations must be of a political as well as of a social and economic nature. This need not imply the politicization of all local organizations in the sense of partisan politics, but rather that they should possess a measure of political power with which to represent their interests and press their viewpoints. The political nature of these organizations is required on account of a characteristic of rural life which is insufficiently taken into account by those planning rural development programmes: the functional heterogeneity of rural communities. This neglect is understandable, for to cope with it cuts at the roots of the established social and political structure of rural areas, and the changes required to permit the mobilization of political forces in rural areas have usually not concerned economic planners.

The design of a small farmer development strategy is an operation which is too multifaceted to be left exclusively to economic planners not concerned with such changes. It is, among other things, a highly controversial matter having far-reaching structural ramifications. Yet, it is because current development strategies have not addressed the problem of political mobilization and the restructuring of the institutional framework of rural society that otherwise well-laid economic plans for rural areas have often failed.

In considering the political restructuring of rural society, it is important to note that prescriptive generalizations are presumptuous and largely inappropriate. The particular forms which new organizations may take are a country-specific function of the socio-cultural milieu and political inclinations of the government in power. The political interests of small landowners, tenants, submarginal farmers who must seek supplementary employment, and landless agricultural workers are different. To date, these groups remain largely unorganized in terms of their functional concerns and the way they earn a living. Mention has already been made of the social and so-called psychological reasons for this; what is of equal importance is that government fiats or indirect government prescriptions have often consciously denied these groups opportunities to organize themselves in ways which would increase their bargaining power vis-à-vis traditional élites.

---

[23] It may be noted that the *Report of the Twelfth FAO Regional Conference for Asia and the Far East* (Tokyo, 17-27 September 1974) included the following statements: "Extra-governmental bodies to undertake the responsibility for the organization of grass-root groups as well as to act as intermediaries between government agency co-operatives, etc. on the one hand, and the small farmers on the other, need to be promoted. These may be academic and research institutions, voluntary organizations, banks and business establishments, etc. . . . " (p. 27).

Unless such opportunities exist, there is little chance that whatever potential leadership these groups have at their disposal will be willing to take the risk of advocating politicies contrary to the interests of the élite. Discouraging dissent may not be difficullt for the landlord, government administrator or local merchant who knows that he will face no organized retribution. A co-operative is more easily taken over by a wealthy farmer to serve his own purposes if the poor farmers are beholden to him in other activities; while rural extension officers are aware of the penalties which they can incur through political pressure if they show much interest in the affairs of the small or marginal farmer.[24]

The existence of both popularly-based political parties and non-political social groups can thus have a significant effect on the *modus operandi* of institutions established to serve the small farmer's purely economic interest. Indeed, without such ancillary organizations to give the disadvantaged self-confidence, dedicated leadership, and, even more important, the power of mobilized numbers, the small farmer will never be able to capture control of the instruments for his economic improvement. The only alternative means to enable the benefits of development to accrue to him would be strenuously-policed, administratively-costly, government-generated welfare programmes which, we have seen, are inimical to the generation of economic development within a market-economy framework.

Unrest in the countryside, which is liable to exploitation by other forces and poses a threat to political and social stability, is becoming a part of rural life in many districts within the ESCAP region. One reason for this is probably the lack of legitimate channels through which more politically-conscious disadvantaged rural people can articulate their grievances and make their concerns felt at the decision-making levels of government. As long as they are denied such channels, a continuation of these potentially violent eruptions may be expected.

In establishing conditions within which small farmers can gain access to the tools of development, Governments need to condone or encourage a greater degree of independent political organization in rural areas than has hitherto been the case. Otherwise, lacking the political power to enforce their demands vis-à-vis extension services, co-operative manager, rural bank officials, local landlords and employers of seasonal agricultural labour, the small farmer's impotence and frustration will persist.

As well as through partisan political activities, the interests of small farmers need to be expressed through a variety of organizations with particular fields of interest. It has been pointed out that heterogeneous rural communities have varied interests, the mutual incompatibility of which is often demonstrated in outbreaks of rural violence. Despite the inclination of government officials to lump the "rural poor" into a single convenient package, distinctions can be discerned even in the simplistic generalization that small farmers want credit, tenants want land, and the landless want jobs.[25] To the extent, for instance, that small farmers are employers of labour, their interests and those of the landless may conflict. Redistribution of land by fiat can set small farmers who gain less against tenants who may be treated bounteously. In short, broad-based rural development efforts must accept the fact that, from a political standpoint, latent antagonistic interests can be exacerbated unless differing currently-disadvantaged rural groups are allowed to express themselves voluntarily in separate organizations. These organizations may join in the pursuit of common goals when their interests coincide, but they can pursue their separate and distinct concerns when it appears to them most advantageous to do so.

It is not to be supposed that such an organizationally pluralistic rural society can eventuate overnight. It is nevertheless true that organizational pluralism must be included in rural institutional reform if Governments wish to avoid violent alternatives.

It must also be noted that rural interests may be divided along lines other than economic subclasses. Pluralism is necessary for catering for these disparate interests — in adult education, in child care and nutritional programmes, in projects of civic improvement, in small group and community social activities, in credit unions and other co-operatives, in various village quasi-self-governing committees and advisory panels — and this pluralism can have a significant if indirect impact on the development of small farmer agriculture. Among its contributions may be the relief of frustration, the teaching of the skills of organization and management, the encouragement of self-confidence and belief among rural peoples that they can affect their own destinies, and the dissemination of other tools of knowledge and techniques which make development possible.

---

[24] This point is well expressed in a paper by Asok Mitra: "One of the biggest impediments likely to raise its head in the working out of the SFDA (Small Farmer Development Agency) and similar programmes for the weaker section is the sluggishness of the politician or the official to operate them other than for the sections of the population they represent; and one knows only too well how the bulk of the extension and revenue staff feel called upon to address themselves primarily to the needs of the middle and rich peasants, if for no other consideration than sheer self-preservation. For, as many know to their cost, except for small pockets in the entire country, the penalties for any genuine commitment to the small and marginal farmer can be exceptionally severe". Waheeduddin Khan, ed., ***Papers and Proceedings of the Workshop-cum-Seminar on Rural Institutions and Agricultural Development*** (Hyderabad, National Institute of Community Development, 1972), p. 62.

[25] An elaborate delineation of the potentially conflicting interests to be found among rural peoples can be found in Griffin, *op. cit.*, pp. 253-254.

Organizations and rural institutions which serve these purposes need to be largely voluntary and, non-governmental, and to have the authority and responsibility to make their own decisions and hence mistakes, since paternalism is not helpful in such organizations. Outside expertise may be requested, however, to provide technical inputs and perhaps initial organizational know-how.

The various organizations should help to provide an appropriate climate for change in rural areas. They should also undermine traditional rural structures and the institutionalized patterns of behaviour which have suppressed self-help and self-interested group activity in many aspects of rural life. Indeed, "integrated agricultural development" is not a package of activities which can be neatly separated from "integrated rural development" — the two are inextrically inter-twined.[26] For example, a multi-purpose co-operative which provides a variety of co-ordinated services to farmers cannot be expected to operate independently of what is taking place around it. Its very existence will precipitate and reinforce similar organizational activities in the lives of its members and their neighbours, just as such external activities will have a crucial bearing on the co-operative's own immediate and long-term success.

To have expected such developments to occur independently may have been the greatest shortcoming of development planning in the past. The politics of a co-operative will reflect the politics of the local village council, *barrio* committee or other organizational form in a particular area — and vice versa. Yet it is to the co-operative, as a self-contained institutional entity, that rural development strategists have given their principal and often exclusive attention.[27] Many failures have occurred and the co-operative's intended beneficiaries have become discouraged, but many advocates of agrarian reform have continued to proclaim co-operative institutions as if they alone could solve all the problems of rural society.

The record of co-operatives in ESCAP developing countries to date belies this enthusiasm. Indeed, experience suggests that it has been often only by a process of elimination that the co-operative form of organization has been selected over others as the institutional apparatus for encouraging economic growth in rural areas.

In principle, it is expected to serve many purposes. It is a vehicle for the mobilization of rural savings; it may eliminate the role of middleman; it provides for the distribution of external inputs and the dissemination of knowledge; it provides economies of scale; it precipitates substance farmers into the cash economy; and it is considered to be "democratic" in that it encourages the active participation of "untutored" rural folk in the management of their own affairs. What other form of organization could accomplish so much?

In practice, however, it does not seem to have served any of these purposes well. With some outstanding exceptions in east Asia and elsewhere, defaults on loans exceed repayments; middlemen and money-lenders continue to flourish; external inputs tend to arrive, if at all, at the wrong time; management may be corrupt and lending policies biased; economies of scale remain unrealized owing to mismanagement or to a decline in membership; and failure to exhibit real opportunities for participation discourages members unused to co-operation.

It is not always thus,[28] of course, but the number of cases where co-operatives have been tried and failed are sufficiently widespread that, if it were not for the faith of their proponents, enthusiasm for this form of rural organization would have been dampened.

The reason for the apparent inapplicability of the co-operative concept in ESCAP developing countries is not difficult to discover, although it goes to the heart of the rationale of co-operatives. The ideological component of co-operation is at present incompatible with the environment in which co-operatives are expected to flourish. Not only do the social, cultural, economic and political aspects of a co-operative's environment inhibit its intended operations but Governments persist in believing that co-operatives can "work" without making a concerted effort to reform those rural structures upon which their success is also dependent.

---

[26] For a delineation of the differing components of an "integrated agricultural development" strategy and an "integrated rural development" strategy, see A. T. Mosher, *Projects of Integrated Rural Development*, The Agricultural Development Council, Inc., December 1972, especially the table on p. 3.

[27] Advisory Committee on Overseas Co-operative Development, *Farmer Co-operatives in Developing Countries* (Washington, D.C., ACOCD, 1971).

[28] Certain ESCAP developing country government publications which describe the integration of co-operative development into rural development strategies suggest that there are exceptions to this general viewpoint. See, for instance: Mahammad Naseem, *Integrated Rural Development*, Government of Punjab, 1974, especially pp. 1-9; N. Sadis Malik, "Integrated Rural Development Programme in Pakistan" in *Report of the International Seminar on Integrated Rural Development*, seminar jointly organized by the Rural Development Wing of the Ministry of Food, Agriculture and Rural Development, Government of Pakistan, and FAO/UNDP, Lahore, November 1973; *Co-operatives Strategy for Rural Development*, Department of Local Government and Community Development, Government of the Philippines, 1974; *Saemaul Undong (New Community Movement)*, Korean Overseas Information Service, Seoul, December 1973, especially chapter V. For a more analytical evaluation of the problems and prospects for the development of co-operatives in the ESCAP region, see the aforementioned UNRISD Series on Rural Institutions and Planned Changes, especially vol. VI, *Co-operatives and Planned Change in Asian Rural Communities: Case Studies and Diaries*, and vol. VII, *Co-operatives and Development in Asia.*

Wherever they are found, co-operatives suffer from an inherent organizational inconsistency. On the one hand, they are ideologically based on notions concerning the latent co-operative spirit of mankind and are expected to provide an organizational framework in which a "democratic", one-man, one-vote spirit can voluntarily express itself. On the other hand, they are businesses. As such, they are economic vehicles to give men (their members) a better chance to become unequal (vis-à-vis non-members) and to generate or satisfy an individualistic competitive spirit among co-operators to improve their lives (vis-à-vis fellow members). When co-operatives with this organizational defect of incompatible goals are superimposed upon rural institutions with long-standing contrary structures, the resulting organizations bear little resemblance to the ideologically "pure" co-operatives which grew up in the entirely different circumstances of nineteenth century England and North America. Instead, they frequently become "co-operative" in no more than name.

Since they are businesses, loans are made to those who supply reasonable surety of repayment, in the judgement of the manager. In this process, the small farmer is likely to lose out. This does not imply, however, that co-operatives operated in accordance with strictly business principles cannot, if certain other conditions prevail, serve the interests even of the small farmer. If complementary and reinforcing structural reforms are instituted to undermine the dominant position of established élites, co-operatives need not be subverted to serve the special advantage of the more affluent and managerially astute.

As institutional manifestations of democracy, co-operatives are subject to the external pressures of local politics as noted earlier. Who is therefore most likely to be elected to sit on the policy-making board of directors? And if the small farmer is benignly offered token representation on this board, in what way might this captive of local vested interests be expected to vote, lacking, as he does, the power which would stem from a strong, organized consistency?

If co-operatives are to be initially established under government tutelage, rather than arise from the expressed needs and desires of the people who should benefit from them, it is difficult to maintain the pretence that they are either democratic or truly co-operative. On the other hand, if their democratic character were abandoned as a false pretence, co-operatives merely would be seen as administrative arms of the central government and, in the absence of broad rural reforms, purposely inequitable instruments of local control.

The only way out of this dilemma is to recognize that co-operatives cannot be expected to create for themselves the conditions for their own survival as instruments of social justice and broad-based economic growth; and that it is incumbent upon the Government to help create those conditions.[29] As indicated above, this requires a medley of structural changes throughout rural society which take time, perseverance and will. And none of these prerequisites has been much in evidence.

Yet, the role of the central government remains crucial in not only helping to provide appropriate environmental conditions in which co-operatives can eventually operate as they ideally might, but in providing assistance in the actual organization of co-operatives and in establishing the needed legal framework to help ensure honest management and to enforce the responsibilities of members. Problems arise, however, when these indirect and supposedly temporary government inputs become entangled in local or national politics and when transient government tutelage gives way to permanent government sponsorship.

Without belabouring points already made or anticipating section 6 below which discusses the proper role of the central government in assisting small farmers, it should be emphatically stated that experience shows that co-operatives must be considered "private sector" organizations and the role of the Government in them must be minimized and of a short-term nature. Otherwise, they become ulteriorly-motivated means to organize the peasantry or merely well-intended welfare institutions rapidly co-opted to serve the parochial and commercial purposes of local élites.

Co-operatives come in many forms. The variables influencing their goals, their organizational forms, the degree of their financial viability and independence, the incidence of participation on the part of their members, and who most benefits from them, why, and in what ways, are many and diverse.[30] For the purposes of this *Survey*, four points need to be made.

---

[29] Inayatullah has perceptively made this point: "To expect that the co-operatives can by themselves transform the local social order is illusory. Co-operatives are best introduced in societies and communities which already have certain conditions conducive to their performance. Instead of wasting resources on planting co-operatives in an unsuitable environment, efforts should be directed towards bringing about social structural and economic changes in society, such as introducing land reform, establishing closer contact between government and local population, weakening the rigidity of local social structures, etc. In selecting regions and communities for the introduction of co-operatives, similar consideration should be taken into account." *Co-operatives and Development in Asia,* UNRISD Series on Rural Institutions and Planned Change, vol. VII, *op. cit.,* p. 271.

First, to serve the purposes of the small farmer, it is essential that co-operatives be organized in response to the desires of prospective members, not their needs as determined by higher authority. By being organized from above rather than generated from below, co-operatives necessarily become subjects of suspicion among intended beneficiaries. To overcome such suspicions, Governments tend to over-react, providing benefits as an inducement to wary peasants to join and commit their meagre resources to a co-operative's operations. This can become a process of perpetual paternalism, eventually leading to the repeated remission of debts or to subsidized input prices until a day of reckoning arrives and, business being business, the debtor loses all.

The role of the Government, its local agents, or other promoters of the co-operative concept must therefore be restricted to that of the slow and arduous process of education and of making certain that a legal environment and an effective enforcement authority exist to render the co-operative a legally viable and administratively sound entity. Its acceptance must be allowed to develop, in many cases only gradually, and its economic viability should be established through the making of mistakes rather than the illusion of continuous successes. If, during an intervening period, "welfarism" or simply a vehicle for the rapid and efficient flow of goods and services to rural areas is wanted, the organization designed to provide them should be called something other than a co-operative. Co-operatives can stand on their own, once there exists an interested peasantry which can clearly benefit from them and a conducive legal environment to assure their success; they will not be fostered by spurious promises or when imposed from above.

Second, ensuring the strenuous enforcement of managerial honesty, voting privileges of members, adherence to by-laws, and the unbiased disbursement of benefits should be the primary role of the Government. Regional statistics do not exist on the number of co-operatives which have failed due to administrative incompetence and even corruption on the part of managers and directors. Indeed, many who have mismanaged their official trust have never been called to account. As long as members have no recourse when their co-operative has been maladministered, those with official responsibilities will tend to abuse their trust, inhibiting prospective members from entrusting their money to their care. Unfortunately, providing recourse in order to ensure the successful operation of co-operatives may by very difficult. On the one hand, in many rural contexts potential group pressure and vigilance are too unorganized and fragmented to act as a substitute for traditional élite authority patterns or a modern legal system. On the other hand, radical structural reform may be beyond the administrative capabilities of most Governments. In such cases, co-operatives are likely to be unable to perform their appropriate role without external supportive and reinforcing structures, including some semblance of legal constraints on the behaviour of their officers.

Third, considerable emphasis is now generally being placed on multi-purpose co-operatives instead of their single-purpose predecessors. Recognizing that a variety of co-ordinated external inputs is usually required to increase agricultural productivity, multi-purpose co-operatives are viewed as the preferred vehicle to ensure the co-ordinated delivery of these inputs at the right time and place. It is averred that a multitude of organizations cannot complement each other properly without more sophisticated and widespread managerial skills and administrative know-how than can now be found among rural people and available leaders and advisers.

Nevertheless, the assumption of several functions by a single organization does not necessarily imply that they will be more effectively performed or internally better co-ordinated than those of several organizations. Moreover, by reducing the number of leadership positions within a community, needed human growth in technical skills, managerial ability and leadership may be inhibited. While the use of multi-purpose co-operatives may recognize the need for a variety of inputs to effect agricultural development in rural areas, it does not necessarily reflect increased awareness of the equal need for non-agricultural reforms and non-economic inputs to induce rural change. Although some co-operatives have attempted to undertake a broader range of activities than the provision of economic services to their members, this often spreads them too thinly over the rural landscape and leads again to maladministration and disappointed expectations. In addition, a preference for multi-purpose organizations may imply a government interest in the control of rural development activities through a single administrative apparatus, rather than in organizational pluralism and the encouragement of broadly-based, independent local leadership with its own power base.

---

[30] It would serve no useful purpose to enumerate them here. If there is any rural institution about which an abundant literature exists, it is the farmer co-operative. These can better be consulted by those interested in the subject than by their being reviewed and recapitulated here. Of special interest is the eight-volume UNRISD Series on *Rural Institutions and Planned Change* which surveys and analyses data on co-operatives in all regions of the world. See particularly vol. VI, *Co-operatives and Planned Change in Asian Rural Communities: Case Studies and Diaries*, 1970; vol. VII, *Co-operatives and Development in Asia: A Study of Co-operatives in Fourteen Rural Communities of Iran, Pakistan and Ceylon*, 1972; and vol. VIII, *Rural Co-operatives as Agents of Change: A Research Report and a Debate*, 1975.

The fourth point which needs to be made is that a network of separate co-operatives established at the local level across the rural landscape may have the advantage of being organized in response to expressions of local interest, of providing useful services to farmers, and of serving to enlist the active involvement of rural people in developmentally significant activities. Unfortunately however, the network approach may appeal to those enamoured of a "numbers game", by which an index of rural development is found in the quantity of co-operatives or other "modernizing" rural institutions that have been organized.

Moreover, as instruments of small farmer development, these separate organizations are especially liable to control by local élites, and to poor management through their lack of professional advice. They are also liable to be short-lived in the absence of the sustained interest, economies of scale, and political clout needed to gain access to supplies and services over which they individually have little control. Thus, local co-operatives, whether single-purpose or multi-purpose, must be horizontally linked with other similarly oriented co-operatives, and also linked informally through several tiers of co-operative administrative units to policy-making branches of the central government. The latter association should let them exert appropriate influence in the setting of national priorities, the allocating of scarce national resources and the determining of the distribution of needed rural inputs.

Although the Government should not be involved in the formal administration of co-operatives, effective systems of communication need to be established between the central government and federations of co-operatives. Continuous interchanges between the two are essential to the proper functioning of both official and private instruments of development. Co-operatives cannot expect to thrive as long as members must passively rely on the Government to formulate policy on credit, research, extension, delivery of inputs, marketing and infrastructure. The local-level institutions need to be involved in order to avoid the situation where the Government focuses the attention of agricultural research facilities on capital-intensive agriculture, provides farm-extension services only to the wealthy and well-born, delivers fertilizer in a manner and at times not suited to small farmer interests, provides for the marketing of crops only to the extent it suits their convenience or that of the landed élite, or undertakes allied infrastructural improvements to help the co-operative meet its obligations only when "excess" resources are available. Organized pressures must be on hand to articulate the needs of co-operators to central government ministries, and this requires national or regional co-operative federations to speak for them and, by force of the numbers they represent, to gain access to decision-making levels of government from which less powerful groups would be turned away.

Individual local co-operatives are also in need of periodic managerial advice, facilities for the training of members especially in such areas as the elements of successful loan-making and credit control, group purchasing power, farm-extension services, and vehicles for the professional investment of cash assets. The village-level co-operative can perform many services other than being merely a local implementing arm of higher-tiered co-operative units. But experience demonstrates that the developmental usefulness and long-term viability of co-operatives is dependent upon the lowest-level, decision-making unit being situated above the village level. It might serve a cluster of villages, as in Japan, Israel and Egypt, or be located at the county-level, as in the Republic of Korea, Uganda and the Comilla district in Bangladesh.[31]

Nevertheless, the most common form of co-operative continues to be that encouraged at the village level, where it is too small to provide its members with economies of scale, too weak to contest the power of the local ruling élite, too poor to hire competent staff, and too remote to ensure access for its members to needed supplies and marketing facilities. This may suit the political convenience of local and national ruling élites, since purely village co-operatives pose relatively little threat to their established position in comparison with potentially powerful federations. However, if the small farmer is to be reached with services and provided with access to the educational and material means for his own advancement through the instrument of co-operatives, rural institutional reform must involve the establishment of a non-governmental, multi-tiered, co-operative apparatus. Whether this involves several parallel tiers of single-purpose co-operatives, or intertwined combinations of multi-purpose co-operatives, will depend on specific local and country conditions. But, in either case, tiered administrative arrangements are necessary if co-operatives are to exercise effective power at different levels of governmental authority, while also allowing each individual co-operative to respond to the various interests and aspirations of its own constituency.

---

[31] Owens and Shaw, *op. cit.*, pp. 82-86. See also UNRISD Series, *op. cit.*, vol. I, p. 331.

No less important than the danger of co-operatives' defence of small-farmer interests being eroded without protection against external and superior influence is the threat of internal subversion of their purposes. It has been pointed out already that, to be effective, the co-operative or other organization would need to represent the interests of particular subclasses such as the small farmers, and to ensure equitable distribution of benefits among them rather than inappropriately large shares being taken by groups among the membership which can exercise extra power. It could be argued that the extent to which this can occur is largely a function of the composition of the membership. Indeed, among proponents of co-operatives there is a continuing debate concerning the degree to which the membership of a co-operative needs to be "homogeneous" in order to ensure that the benefits of membership are equitably distributed among its members.

Without attempting to resolve this controversy, which is subject to many country-specific situations, two points should be made: (a) the nature or critical element(s) of the desired homogeneity is difficult to identify and is itself subject to controversy; and (b) a co-operative's initial homogeneity can be expected to become (indeed, should become) increasingly heterogeneous as membership in a co-operative enables certain members to become more successful than others. The first problem is one of initial categorization: should membership be based upon farm size, present income, commodity currently produced, geographical location, level of education, membership in some traditional (quasi-co-operative) group, social class or caste, or other attribute that prospective members possess? The notion of discriminating against the wealthier and better-educated farmer may be theoretically attractive, because it eliminates those to whom managerial power tends to gravitate and the benefits of membership tend disproportionately to accrue; it is nevertheless disgracefully undemocratic in motivation (and thereby contrary to long-standing co-operative ideals) and is equally difficult to maintain: must a member resign or be expelled when he later acquires an additional 10 hectares of land or when his family income happens to double? Similarly, selecting members on a basis other than that of desire and interest establishes a dangerous precedent: who chooses to whom the benefits of co-operative membership shall be extended — the central government? donor-nation promoters? local government authorities? or the people who decide themselves what sort of co-operative they themselves would most like to form? If it is not the latter, then the promotion of co-operatives may generate more problems than it can be expected to solve. A far more effective device to ensure the equitable distribution of power and benefits among the members of a co-operative are: (a) an educational programme among prospective members to instill in them an understanding and appreciation of their participatory responsibilities as members; and (b) enforceable legal restraints to protect members from the petty corruption or administrative bias of the co-operative's officers and managers. As discussed elsewhere in this section of the *Survey*, it is not so much the homogeneity of a co-operative's members which is crucial to its proper functioning, but the general structural changes which are encouraged in the social and political milieu in which the co-operative is organized.

From the review of small farmer credit facilities undertaken in chapter 5, it is clear that there has not yet been evolved in the private sector appropriate institutions — whether co-operatives or commercial banks — which satisfy the credit requirements of small farmers. In part, the problem is one of an inadequate supply of funds in the formal credit sector which is serviced by commercial banks, co-operatives, farmers' associations, etc. This is a result of interest rate policies in this sector which discourage the deposit of savings there, of the conservative attitude of commercial banks and others to the lending of funds in rural areas, of the monopoly power of money-lenders in the informal market in rural areas, and of the high administrative cost and possible greater danger of default in making loans to the small farm sector. On the demand side, it is because of the small farmers' high evaluation of the risk of raising credit and his frequent need for 'consumption' as distinct from 'production' loans. In all of these areas, strong government action could be taken: land reform in its broadest sense could improve the asset position of the small farmers; lending organizations could be required by law to consider forthcoming crops and movable assets such as stock as collateral (assisted perhaps by some form of crop insurance schemes) and to provide credit for general as well as what are considered narrowly as production purposes; interest rates could be raised by law in the formal money market in rural areas to parity with those in urban areas; and the Government could direct an increased flow of funds to the formal market in rural areas. Any one, or all of these policies, however, is unlikely to work unless efforts are also made to involve the small farmer in both decision-making and taking responsibility for his decisions in this area, and unless such credit measures are backed up by the many other types of reform considered in associated areas. Although credit is made available in increased amounts consistent with his needs and at cheaper prices, the farmer will not use it or use it responsibly unless he is motivated to do so. As chapter 5 suggested, cheaper credit could be forthcoming from farmers' associations and farmers' co-operatives if they voluntarily bore some or all of the cost of administration. The making of these loans at non-subsidized rates of interest, the tying of them to the marketing of crops (perhaps in association with some form of crop insurance scheme) and the mutual interest of members in seeing that defaults for whatever purpose were minimized could have a salutary effort on the attitude of the small farmer to credit and to his use of it. At the same time, a medley of rural institutional reforms is required, for reasons earlier discussed, in order to encourage savings and provide a satisfactory return on agricultural investment. As long as single-factor solutions are sought, the central government will find itself on the rural scene making bureaucratic efforts to tackle the problem with a profusion of unco-ordinated inputs. These either antagonize the sceptical and wary farmer or leave him with the false impression that transfer payments from the nation's capital will always bail him out of a tight squeeze. This impedes the development of self-reliance and entreprenurial zeal and ignores the critical importance of "bottom-up" planning.

The provision of an institution does not ensure its use. Thus, legislation requiring commercial banks to establish offices in rural areas as a means for getting credit into the pockets of small farmers, or the supply of extension agents to the countryside armed with high-yielding varieties and pamphlets, are insufficient measures. It is only by a gradual process involving education, social change, political enfranchisement, and a climate of opportunity in rural areas that demands for supplies and services will be created.

Fundamental to all private institutions are those instruments of political reform generated to provide small farmers and other rural groups with a critical voice concerning their own affairs and with the power to make that voice heard in the higher echelons of government. This will assuredly require the development of non-government channels of communication between and among rural people and their mobilization into politically-oriented organizations. Whether these constitute parties, factions, or non-partisan interest groups seeking to influence established parties or government agencies and legislative bodies will depend upon individual country circumstances. It will also require, however, allowing rural people an active, participatory role in the functioning of public instruments of change, particularly local governing institutions.

5. *The reform of local governing institutions*

Recent rural development strategies have often failed to distinguish between programmes of welfare and those of social justice. This may be understandable since, in the experience of developed countries, the two are likely to appear coincidental. Indeed, the development planners of donor nations may have encouraged this approach by their recent emphasis on income distribution as constituting a "new look" in foreign aid programmes. It is one thing to redistribute earned income and another thing to effect redistribution by politically-sound, socially-acceptable, and economically-viable structural changes in rural areas which will raise the income and productivity of the poor. Where such structural changes are not fostered in ESCAP developing countries, activities in support of social justice become transient, opportunistic, politically-motivated expedients which perpetuate and sometimes strengthen traditional instruments of control over the rural scene, and only temporarily mitigate rural discontent. These major effects of welfare programmes are less of a threat in developed countries, where the structures already exist to utilize financial and other resources to strengthen and establish instruments of economic and political power for the disadvantaged so that they can better contest those of the affluent. In developing countries, however, where the necessary instruments do not yet exist and are prevented from being established, a mere redistribution of earned incomes has little impact on poverty and is not social justice.[32]

One of the principal administrative consequences of such redistributive programmes is a confusion between two distinct requirements for activities contributing to the goal of economic growth and social justice. One of these is the need for the decentralization of rural administrative units in the interest of providing rural peoples with readier access to government-supplied services as well as eliciting enhanced responsiveness to the differing needs, desires and capacities of people in geographically distinct areas of the country. The other of these is the need for the devolution of decision-making powers upon lower levels of governmental authority to allow the active participation of rural peoples in the planning, implementation and evaluation of public programmes of rural reconstruction.

---

[32] Among the constituent elements of a programme serving the goals of social justice may well be programmes of simple welfare designed to assist those incapable of assisting themselves or to provide the disadvantaged with the requisite tools or the energy to obtain them so that they can eventually carry on without the need of "free" supplements. A programme of social justice, however, requires establishing broad-based conditions — social, political, economic, and legal — which enable rural and other disadvantaged peoples to "do for themselves" rather than "be done to". Social justice entails structural reform, whereas welfare does not. Or, to put it another way, welfare involves the redistribution of income; social justice entails the redistribution of power. Those wishing to distinguish between purely economic social justice and a more inclusive concept of social justice should note that the thrust of this *Survey* is that the former cannot be achieved without attention to the latter.

It has been suggested in discussing the organizational prerequisites of co-operative institutions that it is important that the basic decision-making unit should be established above, not at the village level. The same caution holds true for governmental administrative units, although in the interest of providing continuing technical advice and accelerating the delivery of services and supplies, the central government will locate one or more of its agents in the village. Often this agent is there primarily to exercise overt and locally-understood police powers. A more insidious instrument of control is the role played by the local "change agent", i.e. the village-level worker or community development specialist, whose job is to facilitate the adoption of projects which are defined by the Government as developmentally useful and which villagers are expected to choose.

The results of this approach to the generation of rural change have been described already. Villagers do not learn how to exercise authority or assume responsibility for their decisions, and change agents facilitate little more than physical evidence or illusions of progress. The reasons for this are to be found in the background and training of these local change agents, the way in which their jobs are defined and to whom they are ultimately responsible, and in the often preponderant role which instruments of the central government play in deciding which village gets what, when and how. Moreover, these agents take up official residence too close to the villager and attempt to play a decision-making role in a local context where they are physical but not social members of the community. In one sense, decentralization has gone too far, while, in another sense, decentralization has not occurred at all because these change agents are clearly part of the apparatus of the central government and circumscribed by it in what they do and say. In this situation, villagers quickly become aware that the local agents serve the interest of the Government rather than that of the people, providing yet another instance of welfare rather than social justice.

Each argument can be carried one step further. Decentralization of the government administrative services involves consideration of both the services tendered and the procedures by which they are tendered. These services come primarily in the form of written or verbal advice. An extension agent serving the interests of small farmers need not be present in the paddy fields with the small farmer to provide him with this advice. Again, a community development worker need not be present in the local governmental forum in which decisions are made concerning the appropriation of public monies for developmental projects in order to effect useful change. A few exceptionally competent extension agents and community development specialists can be present without being overbearing or skewing decisions towards government lines; but more often the agents' presence in the field or village council chamber constitutes a paternalism which undermines the self-confidence and sense of responsibility that is fundamental to a self-perpetuating improvement in the quality of rural life.

Experience seems to show that decentralization, to effect change in the attitudes and well-being of people at the village level of rural society, requires their active participation in the making of mistakes. To be denied this is to be denied the chance of personal growth. It also entails accepting responsibility for those mistakes. Generally accepted procedures for rural reconstruction usually include ways to eliminate both the making of mistakes by the farmers and their acceptance of responsibility for them. It is here where a "new look" in governmentally-inspired inducement of rural change is needed.

There are two principal elements to this "new look". Units of rural administration through which government inputs are supplied to the small farmer should generally exist at levels above that of the individual village. At the same time, however, self-governing institutions should be generated at the village level which provide local leadership and expertise in functional areas of substantive interest to villagers. External inputs should be funnelled through the latter institutions and personnel, leaving the external agents in an advisory and delivery role.

Detailed examination of the variety of institutional ways in which this can be accomplished would be inappropriate here since, like most other institutional reforms, these are necessarily culture-bound and country-specific.[33] The several ways in which variations of this institutional formula have been tried — and the suggested causes for their relative rates of success and failure — can be found in documentation concerning experimental and countryside programmes established in such countries as India, Bangladesh, Thailand and the Philippines. However, it is possible to extrapolate a few salient points from this collective experience.

First, agents of the central government should be confined to facilitating the delivery of supplies and acting as an important intermediary for two-way communication between local units of self-government and national-level administrative units. They should not be "do-ers" but rather advisers, and the time they spend in any one village should be brief and intermittent at best.[34]

Second, institutes must be established for the training of locally-identified leaders, chosen by their peers, in the several related aspects of rural reconstruction. Knowledge and skills can be disseminated from these rural reconstruction institutes either by utilizing "travelling road shows" of expert manpower, trained in simplified procedures of communication with rural people in their own locals; or by bringing individual leaders to residential or county-level branch facilities where basic and simplified technical knowledge, together with elementary skills in communication, would be taught in short training sessions. To provide a multiplier effect to such training, the villagers who are trained should be expected to train others, certainly in their own village and possibly, depending on socio-cultural and geographic circumstances, in neighbouring villages.

Third, local self-governing institutions at the village level would be encouraged to form committees composed of appointed or elected leaders which would become the focal point of local change in particular substantive areas, such as agriculture, family planning, and health and nutrition, as village interest showed itself. It is these leaders who would be trained by the staff of the above-mentioned institute and thereafter become responsible for the training of their local peers.

Finally, villagers must be encouraged to invest part of their own time and savings in the development activities which they choose to undertake. Rural works programmes and employment-generating public infrastructural projects may be appropriate in some cases. However, when small farmers themselves donate their time freely and contribute their own private or locally generated resources to help in the construction of irrigation and other facilities, group projects become more wisely chosen, even though their planning and implementation may seem to the outside observer to be unnecessarily delayed. Yet, unless such projects are selected by rural people themselves, their free labour can become forced labour and their voluntary contributions no more than government-initiated exactions from the rural poor.[35]

The above four characteristics of a public institutional apparatus designed to serve the small farmer and other rural people all have a common crucial purpose: to reduce the dependency relationship which persists between rural people and the central government together with other external agents of rural improvement. Benevolence stultifies development by reinforcing an inclination among tempermentally passive people to wait for assistance rather than to assume personal responsibility for attacking and overcoming their poverty, particularly when the benefits may be short-lived. By dealing directly with rural people, rather than through the the people's own intermediary institutions, central governments effectively prevent local manifestations of initiative, not to mention the actual implementation of locally-generated project activity.

---

[33] See however Guy Hunter, *The Administration of Agricultural Development: Lessons from India* (Fairlawn, N. J., Oxford University Press, 1970); Norman K. Nicholson, *Panchayat Raj, Rural Development and the Political Economy of Village India* (Ithaca, Cornell University Press, 1973); Akhter Hameed Khan, *Community and Agricultural Development in Pakistan* (East Lansing, Michigan State University, 1969); Edgar Owens, "The Local Development Program of East Pakistan", *International Development Review*, IX, 1, 1967, pp. 27-30; Rehman Sobham, *Basic Democracies Works Programme and Rural Development in East Pakistan* (Karachi, Oxford University Press, 1968); Arthur F. Raper and others, *Rural Development in Action: The Comprehensive Experiment at Comilla, East Pakistan* (Ithaca, Cornell University Press, 1970); R. P. Christensen, *Taiwan's Agricultural Development: Its Relevance for Developing Countries Today*, Foreign Agricultural Economic Report No. 39 (Washington, United States Department of Agriculture, 1968); Min-Hsion Kwoh, *Farmers' Associations and their Contribution toward Agricultural and Rural Development in Taiwan* (Bangkok, FAO Regional Office for Asia and the Far East, 1964); John D. Montgomery and others, *Rural Improvement and Political Development. The JCRR Model* (Washington, American Society for Public Administration, 1966); T. H. Shen, *The Sino-American Joint Commission on Rural Reconstruction* (Ithaca, Cornell University Press, 1970); Neil H. Jacoby, *U.S. Aid to Taiwan: A Study of Foreign Aid, Self-Help, and Development* (New York, Praeger, 1966); Harvey M. Choldin, "An organizational analysis of rural development projects at Comilla, East Pakistan", *Economic Development and Cultural Change*, No. 20, July 1972, pp. 671-690.

[34] The proper role of local "change agents" as catalysts, to ensure increased spread-effect and local impact of their activities, requires greater attention on their part to explaining new opportunities for local organization to achieve specific and locally desired objectives and assisting in developing the processes through which new local leaders are identified and popularly selected. Once this process begins and local leaders with specific areas of responsibility are in evidence, the "change agent" can begin to concentrate on providing advice and training to them in the substantive areas of their responsibility in agriculture, health and nutrition, child care, road construction, cooperative formation, etc. By this process, "community organization" takes precedence over "community development" and the selection of local leadership responsible to its own local constituency takes precedence over getting a specific job done in the most efficient way possible, however dire the local need.

[35] Devolution of power upon local self-governing bodies entails that these bodies possess the financial resources necessary to wield power effectively and, within legal limits, as they choose. Local taxation authority is unquestionably an effective device to generate popular involvement in the political process; redistribute income on a local basis; effect (through property taxes) a form of locally-initiated land reform; and bring about the identification of new leaders willing to contest the ways in which these financial resources are expended. Until such time as devolution includes local taxation powers, central governments can provide such needed revenues by any number of different types of programmes involving grants-in-aid from their own sources of revenue.

The institutional consequence of this is what has been properly described as a dual society[36] in which a small group of rulers make the decisions ("top-down" planning) and the ruled carry them out under élite supervision. Seemingly benevolent at times when, to assuage discontent, bounty is paternalistically made available to the ruled, such Governments nevertheless risk economic stagnation and perpetual discontent by the denial of even a semblance of social justice to the masses. Whereas visible manifestations of development may be observed — roads built, fertilizer distributed, schools constructed, transistor radios abounding — sustained development may remain constricted, because purpose is lacking and the opportunities for individual advancement and involvement are limited by the continuation of anachronistic social, cultural and political institutions.

Expanding rural structures by increasing their functions and devolving upon them primary responsibility for the employment of both resources which are locally generated and those resulting from centally funded grants-in-aid[37] or other redistributive devices, is a difficult and painful task. More important, it is a complicated task not amenable to single-factor solutions. Failures are plentiful until a pattern of complementary injuts and the organization of parallel local institutions gradually provide a climate of change and an expansion of real opportunity for the individual advancement of rural people. Although the largely futile efforts to modernize the *panchayat* structures in India and Pakistan may causes pessimism, institutional reform in rural areas is simply not possible if single-factor solutions, concentrating on one or two institutions, are persistently relied on.[38]

The single-factor approaches which have been recommended to overcome rural "backwardness" are legion, including, at various times, community development, the encouragement of co-operatives, the successes at Comilla, and the much-heralded "green revolution". It is now known that these single-factor approaches had two critical deficiencies: they did not make available complementary horizontal inputs and parallel structural arrangements for the infusion of supplementary knowledge and skills, along with institutionalized opportunities to utilize them; and they did not provide for vertical integration of activities undertaken at the local level with activities undertaken at higher levels (e.g. in planning ministries or national agricultural research stations).

The needs for (a) a variety of inputs to mutually reinforce local developments and (b) a multitiered institutional framework have already been discussed. The purpose of the framework is to provide services and supplies to satisfy gradually increasing local demands and to co-ordinate the activities undertaken by clusters of villages in a geographical area. If, at the village level, resources become available and leadership generated to mobilize new demands for those resources, there will come a time when purely local projects will need to be supplemented by projects affecting neighbouring villages and requiring their active co-operation. Institutionalized means will then need to be available through which the interests of combinations of contiguous villages can be aggregated and conflicts of interests between them equitably resolved.

Local self-governing institutions, with resources which they may appropriate as they choose, and based upon an electoral system which generates new local leadership along functional lines, constitute only a part of the total self-governing institutional picture. In addition, there must be a structure which enables local leaders from a number of neighbouring villages to assemble regularly in order to encourage and facilitate inter-village co-operation on tasks which could be tackled as joint projects because of geographical considerations (such as a dam-building or road-construction project) or because of economies of scale (such as joint purchasing arrangements). The danger of such institutional assemblies is that county-level administrators may exert an inordinate degree of influence in them. A very thin line demarcates the provision of advice in the making of plans and the making of decisions respecting those plans. However, if villages, or clusters thereof, possess the independent resources necessary to finance village-level and county-level public projects, and if local leadership becomes increasingly responsive to village demands for the expenditure of these resources in self-interested ways, it can be anticipated that the influence of government bureaucrats will be minimized, if only because bureaucrats tend to eschew political controversy.

---

[36] See Owens and Shaw, *op. cit.*, pp. 3-15.

[37] One case in which financial resources have been made available by a central government to local self-governing units for their largely independent disposal is a programme begun in 1975 by the Government of Thailand which granted substantial funds directly to each *tambon* (district) throughout the country. Each *tambon* council was responsible for the selection of projects in the use of this money, except for only minor administrative constraints.

[38] Of course, in any multifaceted programme of rural development it is necessary to start somewhere, and this may mean that, if there is to be a sequential pattern of rural inputs and externally-induced reforms, one or another institution will appear as if it is being looked upon as a single-factor solution to rural reform, when in fact this is not the case. Additionally, if reforms are to be attuned to the needs, desires and capacities of intended beneficiaries, the development of certain institutions is likely to be afforded a higher level of priority than that of others. Although this can lead to the gradual expansion of the activities undertaken by that institution (e.g. a single-purpose co-operative becoming a multipurpose co-operative) and its success can encourage an attempt on the part of rural people to establish additional local institutions, there is always the danger that planners will believe that one institution is enough for the time being, rather than recognize the need for multiple rural institutions and a variety of external inputs.

There are, therefore, three institutional prerequisites which must be met in order to foster local self-governing institutions which will generate useful local development: (a) money must be placed at the independent disposal of these local self-governing units, (b) previously-described conditions for the election of leaders on the basis of non-ascriptive attributes need to be gradually provided, and (c) rural administrative officers should be precluded from offering more than technical or managerial advice to these self-governing units and even do this only when specifically requested.[39]

This would have four sets of benefits for the small farmer. First, agricultural extension agents and other relevant government advisers operating out of offices located at the district or country level would be available at the request of local self-governing units to train local leaders in agriculture and animal husbandry in such manner that they could pass on their new knowledge and skills to their neighbours. A climate of change in villages would gradually be generated as non-formal education also takes place in non-agricultural disciplines, such as health and nutrition, child care, adult literacy, and the organization of co-operatives, and as village people learn that they can in fact learn new skills and can apply these skills to change their lives in demonstrable ways.

Second, new patterns of local leadership would be formed by strengthening the financial independence and self-governing nature of local government institutions. With a legally established forum for the equitable resolution of conflicting local interests and increased debate on the use of locally-managed financial resources, the power of established élites would be either broken or induced to respond to new interest groupings within and among villages. Merchants may want a road, farmers may want improved irrigation facilities, the local school-teacher may want additional classroom space, those residentially clustered in villages may demand electrical facilities. Such a fractionalization of local communities into small but very alive interest groups should include an increase in the small farmers' bargaining position vis-à-vis large landed interests by generating countervailing powers willing to contest the latter's control of the local scene, and this is a primary step towards the small farmer getting a fair share of needed external agricultural inputs.

Third, locally-financed development projects would gradually come to serve interests other than those of the wealthy farmers and, more importantly, small farmers would begin to learn how to organize themselves to exert their collective power. Through this experience they would become better able to exercise their new-found power in other non-governmental institutions such as co-operatives.

Fourth, in response to the accumulation and expenditure of revenues at the local level, private enterprise would voluntarily move into rural areas to meet new demands. Although this may initially be to supply services and contract out machinery for publicly-funded projects, it can be expected that it would also offer small farmers easier access to supplies, services, rental equipment and other requisites for the improvement of small farmer agriculture, as well as provide salutary competition for ill-managed or inefficiently small co-operatives.

Popular participation in the development process is a necessary condition for self-sustaining rural development. Alone, however, it can neither produce economic growth nor encourage the self-sustaining initiatives throughout a society which provide for a sense of human dignity among the people who are disadvantaged at present. It also requires institutional reforms, in both the private and the public sector, in order to provide rural people with the organizational opportunities to manage their own affairs in ways they themselves choose. Otherwise, popular participation becomes only another phrase for mass mobilization in the interest of élite-determined goals. It is necessary to bring about the fragmentation of existing, closely-held power structures and the expansion of lower levels of political and economic authority. However, this presupposes concerted allied efforts on the part of the central government to shift the balance of power from the urban industrialized sector to the rural agricultural one.

---

[39] This requires a combination of three changes which affect the role of rural administrative officers and their relationship to rural people: (a) institutional (or administrative) requirements need to be relaxed so that the bureaucracy seems less complex and incomprehensible to rural people; (b) the attitudes of personality and character of rural administrative officers must change, in consequence of changing criteria of selection and promotion, so that government administrators display a greater empathy for, and appreciation of, the status and situation of rural people; and (c) a greater sense of self-confidence and self-efficacy needs to be bred in prospective and established administrative officers: this can be developed through training and refresher courses at government-sponsored academies and will mitigate compensating and dysfunctional attitudes of status-consciousness and superiority towards rural people that diminish their ability to communicate with those whom their activities affect.

6. *The role of the central government*[40]

It is frequently said that reform is only a question of "will": if a Government truly wishes to effect reforms to relieve rural poverty, it need only act, because the instruments to do so are at hand. Unfortunately, of course, this begs the question. The issue is not whether Governments do or do not possess the needed "will" but rather why they should possess it, what means they would use to give effect to it, and what the expected consequences of doing so might be.

Governments are composed of rather intelligent, self-interested politicians, whose positions usually require that they view their countries' development in relatively short-range terms. Although variances in ideological perspectives can splinter traditional and long-standing élite coalitions which usually include bureaucrats, professionals, industrialists and landed elements, those in power at any time constitute in many ways a solid and seemingly impenetrable power-group interested in preserving itself. As long as a Government believes that the retention of its power is dependent upon preserving the socio-economic *status quo,* currently disadvantaged segments of the society will find it difficult to have their voices heard in the higher echelons of policy-making.

It is well known that the Governments of many ESCAP developing countries have tended to pursue policies which, for various ideological, social and political reasons, have favoured rapid industrialization and urbanization. Correspondingly, these Governments have done little to disrupt the sources of income and power firmly held in the hands of large landowners.[41] With a few exceptions, these policies seem to have paid off. Growth, measured by macro-economic indices, has been fairly impressive; physical evidence of power and affluence abounds; self-sufficiency in certain grains has been achieved; and, most important, the élite in most ESCAP developing countries is still firmly entrenched and enjoying the benefits of development.[42] Yet in the region as a whole there persists a large growing population of the poor and one might expect that frustration among the underprivileged cannot help but increase as improved communication networks quicken and intensify self-awareness of their situation. Moreover, on account of population pressures alone, growth measured in *per capita* terms may level off.[43] There are those among any country's ruling élite who tend to avoid seeing these likely and personally-adverse trends. Others are fully conscious of the social, economic and political problems which they face, but are uncertain how to cope with them. Having forced the pace of industrialization and heartily embraced the green revolution's new technology, they realized only later that serious institutional obstacles would need to be overcome if at least some of the fruits of development were to reach rural people. For instance, chapter 3 above shows, in the case of the small farmer, how discriminatory some of this new technology of the green revolution has proved to be when utilized within the framework of pre-existing social and political institutions.

If Governments choose neither the path of augmenting the instruments of government control and suppression of dissent nor that of embracing major social and political upheaval, a more complicated, tortuous and indistinct path must be pursued. A number of the points along this path have been described in earlier sections of this chapter.[44] At some of these points, the implementation of institutional reform may require the Government to do nothing apart from permitting political and market forces to have more autonomy than they now enjoy. At other points, intense commitment and vigorous action on the part of the Government is essential.

Greater toleration by the central government of dissent and organized competitive pressures in the private, non-governmental sector entails allowing the disadvantaged to form organizations which serve their own exclusive interests, and legally protecting these organizations from arbitrary suppression by established interests which can now often act in concert or collusion with legitimate police forces. Clearly, the right to organize lawfully and assemble peaceably has inherent dangers in a polity riven by the intensity of conflict found in many ESCAP developing countries. But to deny this right altogether (or even to fail to ensure it under the law) is simply to deny the possibility of orderly change. For only if Governments permit the relative autonomy of co-operatives, of peasants' associations, of local interest groups and of competitive private enterprise will the stultifying effects of paternalism and the power of local oligarchies be overcome by peaceful means.

---

[40] See R. Braibanti, ed., *Political and Administrative Development* (Duke, 1969), for a number of articles relevant to this discussion.

[41] Among the exceptions, see, for example, the Sri Lanka Government's decision in 1975 to expropriate 0.6 million acres of cultivated land as part of a land reform programme which precludes anyone over the age of 18 from owning more than 50 acres of land. See Central Bank of Ceylon, *Bulletin*, May 1974.

[42] On the contrary, of course, some developing countries in the ESCAP region suffer from economic stagnation and food shortages; others have sought to suppress dissent to counter serious political instabilities or imagined threats to the *status quo*; still others have succumbed to movements which have caused changes of government and occasionally of its power-base. The regional situation is in fact not as some would choose to picture it.

[43] See chapter 2 of this *Survey* for evidence that it may have done so in 1975 and could continue to do so in 1976.

[44] About all, the strategy depicted in this *Survey* requires a degree of patience on the part of Governments which may well appear inappropriate to some commentators in the light of prevailing conditions in ESCAP developing country rural areas. How much time a Government may have in which to encourage needed institutional reforms will vary from country to country. The sad, and often times unrecognized dilemma of planners, however, is that, if they seek to further the processes of rural development and institutional reform "hothouse fashion", they may neglect to provide for the attitudinal changes among rural people and the trial and error experience in operating new institutions which is necessary to enable reforms to prove effective; and if Governments do not move quickly, it may soon be too late for them to do anything. Yet, Governments which are genuinely committed to reform have a greater chance to endure and, over a period of years, effect the necessary fundamental reforms than will Governments which seek to perpetuate the institutional *status quo* or persist in attempting to encourage rapid economic growth without the structural reforms necessary to render it meaningful to the vast majority of the population.

At the same time, governmental administrative units need to be decentralized to the point where they can better respond to various local need and the increasing expectations of rural people. This will involve identifying appropriate towns in various parts of the country where public investment in government facilities can be concentrated and where private-sector institutions can be expected to gravitate. By expanding existing market towns as administrative and commercial centres (where extension offices, warehouse facilities, shops and services centres, marketing and credit facilities and a variety of other private-sector ventures may be conveniently located), a focal point for decentralized communications between the central government and isolated rural people can be established.[45]

No less important is the improvement and decentralization of legal and enforcement machinery to ensure small farmers and the landless poor as much access as the wealthy to the instruments of government authority. This requires that these instruments in the fields of health, education and agriculture should be geographically located where all, including the less mobile, may gain access to them. The right to assemble peaceably and to organize lawfully may be meaningless if not enforceable and if those who refuse to be peaceable or lawful — whether they be small farmers or the landed élite — are not effectively stopped. Similarly, it is meaningless to expect broad-based development to occur if, for instance, government-operated agricultural research stations fail to provide information of value to all varieties of potential users and if extension agents are unwilling or unable to extend advice to the different types of people, with their differing needs and requirements, who request it. As just one example, Governments have generally failed to insist that research stations and administratively-linked demonstration farms give special attention to the needs of other than the larger and wealthier farmers. In part, as other sections of this *Survey* make clear,[46] this is because a variety of factor market distortions and government policies have ensured that the large farmer remains better situated to take advantage of the new technology and to respond to the need for increased Asian agricultural output. As chapter 2 argues, this is neither efficient nor consistent with the social justice objectives of ESCAP member Governments. If smaller cultivators are to be assisted by new technologies, current government priorities will need reordering to ensure the breeding of new seeds and the development of allied inputs that are within their less affluent means and serve their particular interests.

The establishment of national institutes to adapt to local conditions the technologies which have been developed at international institutes should be a priority in all ESCAP developing countries. Moreover, the national bodies should be linked with a network of demonstration farms in various localities where further refinement of the discoveries can take place. Similarly, increased central government investment in an unbiased and efficient extension service, initiated through the reform of agricultural schools in ways previously mentioned, must be given higher priority than hitherto. Where promotional prospects are slim, pay embarrassingly low, bureaucratic status demeaning, and relevant education and training unavailable, the rural administrator and extension agent are likely to remain corruptible and frequently incompetent. Indeed, if administrative decentralization is to work, greater rewards will need to be extended to those providing rural services as an inducement to skilled, talented and honest people to join and remain in the service.

To extend the range and effectiveness of extension services, new organizational arrangements must also be designed to encourage extension agents to act as trainers of trainers, using village-level leaders who can subsequently train others. To do this requires a strong commitment on the part of the central government to the agricultural sector and, in particular, a recognition of the special and, to date, unmet needs of the small farmer.

It is the contention of this *Survey* that one major area of institutional change concerns land reform. It is obvious that the situation with regard to land distribution and land use varies considerably throughout the region, but in many of the member countries there continues to be a highly skewed and unequal pattern of land ownership and use.[47] It is not argued here that a mere redistribution of land would do much to alleviate poverty. Even a comprehensive land reform would provide only a once-and-for-all improvement in income distribution and, if a small farm strategy is economically superior to the use of larger land units, a once-and-for-all increase in agricultural output.[48] A successful attack on poverty in rural areas must involve a process of continuous improvement in the productivity of the target groups concerned. It is in this connexion that land reform, in association with other policies discussed above, could provide a vital ingredient in a successful rural development programme. By creating an environment of small and fairly homogeneous farmers, a land reform programme would go far to removing the monopolies which distort the prices of land, labour and capital unfavourably from the viewpoint of the small farmer and would create greater equality in the use of the means and conditions of access to modern agricultural inputs. The same measures, by creating a more homogenous society in rural areas, would make it easier to establish the complementary and essential types of institutions mentioned in this chapter. Properly conceived and backed by government legislation, land reform programmes should also deal with such important issues as land consolidation and the levelling of land for irrigation purposes.

---

[45] See Owens and Shaw, *op. cit.*, pp. 45-47. The value of market towns, where some of the attractive amenities of urban life can be provided for rural people who seek escape from the drabness of rural areas into the bright lights of metropolitan areas, cannot be overestimated; population dispersal into several satellite cities or large townships scattered throughout a country may be as crucial to a country's political stability as to its economic development.

[46] See chapters 2-6 above.

If land reform is to be successful, it must remain the responsibility of central governments because they alone have the power and authority to successfully institute and implement such reforms in opposition to strongly entrenched vested interests.[49] There is no doubt that significant land reform in many countries of the region would lead to a shift in the balance of political power in the countries concerned and, for this reason, it is the most contentions of the issues dealing with rural reform. However, there are examples of successful land reforms which have evolved peacefully in both developed and developing countries inside and outside the region and, as other sections of this *Survey* have made clear, there are strong and compelling reasons ranging from those of humanitarian concern to those of long-term social and political stability as well as economic development why member Governments which have not yet properly conceived such measures should now do so.

How Governments act and what mechanisms they may choose to use to effect reforms respecting land tenure and ownership cannot be generally prescribed. Too many regional differences, ranging from cultural patterns to soil conditions, are involved. What may be said is that, in the absence of land reform and the accompanying design of powerful agencies, removed from the whims of transient politics, to implement it, many of the institutional reforms recommended above will have little long-term impact.

Any small farmer strategy requires in addition to the above steps involving government activity affecting the countryside directly, a medley of policy shifts affecting the national economy. Although these may not be considered strictly "institutional" reforms, they are significant in their impact on patterns of institutional change in rural areas, and the sole prerogative of central governments.

Central governments need to initiate and supervise the implementation of a national policy framework within the bounds of which development should take place. This does not imply the development of a detailed blueprint for change. Nor does it suggest that the Government either can or should ambitiously seek to control the course of a nation's development by implementing its policies directly through its own agencies and with rigid adherence to pre-established plans. Indeed, the implementation by developing ESCAP country Governments of the recommendations contained in this *Survey* would require a considerable flexibility. For such implementation needs to be consistent with the devolution of significant decision-making authority upon local self-governing units as well as tolerance of the wastage and inefficiencies which will necessarily result therefrom. This is the price which must be paid if people are to learn by their own mistakes.

Devolution, as discussed herein, entails both the giving of considerable autonomy to local decision-making units and the evolution of institutions of co-ordination among these various units. On a vertical plane, however, a similar delineation of responsibility needs to be established between local units and those at higher levels, including the central government. As one example, large infrastructural projects, beyond the financial and administrative capability of individual communities, and requiring sophisticated engineering inputs, will always be the responsibility of high levels of government authority. What is needed, however, is a more explicit distinction between and among various governmental jurisdictions.

Rural public works programmes, through which local projects are designed, funded, and implemented by or under the detailed supervision of the Government, seem to provide examples of excessive centralization. Much work needs to be done on the evaluation of the impact of works programmes, but such evidence as exists[50] suggests that they may not be significant instruments of development. Despite local variations in the extent to which individual localities become involved in various stages of a specific project, the heavy hand of government administrative oversight and paternalism is always present. Several problems arise from such programmes, however well-intentioned they may be. Firstly, decisions tend to be made on the basis of engineering and economic surveys as to what is presumed to be technically best for rural areas rather than on the articulated needs and desires of those who are expected to benefit most from them. Secondly, local involvement in their initiation and design is minimized or contrived by the inducement of steady income and "free" supplies and machinery. Thirdly, if they are not carefully co-ordinated with growing seasons, such programmes can have an adverse effect on the availability of agricultural labour at peak employment seasons, and can cause marginal farmers to leave agriculture in the unrealized hope of steady and continuing public employment. Finally, as long as the wealthy are the primary receivers of benefit from agriculture (owing to the size of their holdings, their command of the new technologies affecting increased production, and their control of local private and governmental institutions) they will also derive most benefit from rural public work programmes. Thus, when not co-ordinated with other programmes of rural reconstruction, including, perhaps, land reform, centrally-planned and supervised public work programmes may prove to be an adverse redistributive device. At present, they do not seem to make a significant contribution to development and may be viewed primarily as programmes of welfare for the poor and subsidy for the rich.[51]

---

[47] See chapter 6 above and Griffin, *op. cit.*, pp. 18-22.

[48] Peter Dorner and Don Kanel, "The economic case for land reform", *Spring Review on Land Reform*, AID, 1970.

[49] *Ibid.* This review consists of 30 country reports and several analytical and background papers.

Other prerogatives of the central government, notably taxation powers and commodity pricing policies, have often been employed primarily to serve the non-agricultural sector, while import subsidies have served the interests of large, capital-intensive farming. These and other economic policies have thus contributed to placing the small farmer in the precarious position which this *Survey* describes.

Several further examples of discriminatory policies which are based on incorrect assumptions or élitist interests may be cited. First, the fallacious assumption that small farmers either will not or cannot save for productive purposes, has led subsidies and other incentives (such as the location of suitable institutional savings facilities) to be extended to the large farmer rather than the small. Second, in the belief that industrialization must precede attention to the agricultural sector, the terms of trade between agriculture and other sectors have been designed to assist the manufacturing and processing industries.[52] Third, catering to the interests of the politically powerful has kept taxes on land so low as to neither generate needed revenues for rural reconstruction, encourage higher productivity as a means to raise the income needed to pay land taxes, nor prevent the urban rich from purchasing and utilizing land as a tax haven for their so-called "black" money. Fourth, failure to recognize that small-farmer agriculture can be as or more productive than large-scale farming ventures has caused import subsidies to be extended to encourage the mechanization of agriculture, even though this exacerbates other factors making for the adoption of capital-intensive techniques in agriculture. Finally, the refusal to adopt the economic and political efficacy of broad-based rural development by Governments which have focused instead on what they presumed to be the quickest way to increase agricultural production has resulted in credit guarantees and other mechanisms to encourage rural investment neglecting to appreciate, let alone meet, the need of small farmers and other disadvantaged rural peoples for credit for consumption and emergency purposes and for the conversion of debt which they have assumed on unsatisfactory terms.

A fundamental shift in economic policies to alleviate these problems or eliminate their causes must necessarily be part of any attempt on the part of central governments to attack the problems of economic stagnation and social injustice in the countryside. Integrated rural development, therefore, involves far more than a co-ordinated medley of project activity which it is often assumed to mean, just as "institutional reform" cannot be operationally separated from the required reformation and redirection of economic policies. They are all inextricably tied together, mutually reinforcing each other.

What is of special importance to note is that there are no panaceas for rural poverty; no set pattern of activities to follow in order to alleviate social injustices; no direct, rapid and well-trod path along which to funnel the benefits and opportunities afforded by development to disadvantaged rural people; no series of set and empirically verified actions which a central government alone can take, acting, as it were, unilaterally to catalyse the reconstruction of rural areas.

---

[50] For an excellent survey of labour-intensive strategies in rural development see the Southeast Asia Development Advisory Group (Asia Society), "*Ad Hoc* Seminar on Labor Strategies", 21-24 August, 1973.

[51] There are reasons for poor performance other than those cited, including the source and method of funding such programmes and, in particular, the huge demand they make on scarce administrative siklls. The decentralization of decision-making authority should economize on the latter, however.

[52] World Bank, *Rural Development Sector Policy Paper*, February 1975, pp. 29-30.

Institutional reform is a slow, painful, and never-ending process. The problem is that until recently so little attention has been given to it except in a piecemeal, project-oriented, palliative way. Yet, unless Governments soon attempt to broaden their power base by instituting reforms which will provide opportunities to the great mass of rural people to participate in the process of their country's development and enable them to share in its benefits, there appears no other recourse than either that of authoritarian regimes of suppression or that of an eventual capitulation to the forces of radical and probably violent change.

The reforms discussed in this chapter of the *Survey* would surely be unacceptable to many powerful elements in whatever society they were instituted. Many of these reforms would be opposed openly and vigorously or by resort to subterfuge and perhaps even conspiracy. Because the voices of the wealthy and established are heard in the corridors of power more loudly than those of others, a false impression may be given that their interests are and should remain paramount. It should nevertheless give Governments pause to consider how many are those in their own country whose frustrations and bitterness are building, and how imminent are the consequences of a failure to assuage them with an operational commitment to institutional reform.

ECONOMIC BULLETIN FOR ASIA AND THE PACIFIC
INDEX OF ARTICLES

The articles published in the *Economic Bulletin*, since Vol. XXI, are listed below:*

Vol. XXI, No. 1/2, June/September 1970 (combined issue)

- Report of the Seminar on Recent Developments in Planning Techniques
- Structural development in the developing ECAFE countries
- Resource allocation between capacity creation and capacity utilization
- Relevance of development models to economic planning in developing countries
- Interrelations between project, sectoral and aggregate planning

Vol. XXI, No. 3, December 1970

- Problems of integrating the private sector into the national economic plan
- Economic co-operation among the Council for Mutual Economic Assistance (CMEA) countries
- Economic reforms in socialist countries

Vol. XXI, No. 4, March 1971

- Economic Survey of Asia and the Far East 1970
    - Part One: The Role of Foreign Private Investment in Economic Development and Co-operation in the ECAFE Region
    - Part Two: Current Economic Developments

Vol. XXII, No. 1/2, June/September 1971 (combined issue)

- Report of the Expert Group on Criteria, Machinery and a Detailed Scheme for Periodic Performance Evaluation during the Second Development Decade
- Three papers on price and trade indices for Afghanistan
- Manpower demography of countries in Asia and the Far East
- Trends in the economic and social development of the Soviet Central Asian Republics

Vol. XXII, No. 3, December 1971

- Conference of Asian Economic Planners (fourth session)
- Country economic surveys

Vol. XXII, No. 4, March 1972

- Economic Survey of Asia and the Far East 1971
    - Part One: Social Justice, Employment and Income Distribution in the ECAFE Region
    - Part Two: Current Economic Developments

Vol. XXIII, No. 1, June 1972

- India: a review of development strategy policy and performance
- Development policies in Ceylon: 1966-1971
- Republic of Korea: economic development and major policy issues
- Effects of income redistribution on economic growth constraints: evidence from the Republic of Korea
- Ways and methods of economic planning in the USSR: case study of Tadzhikistan

Vol. XXIII, No. 2, September 1972

- Regional development planning
- Progress reporting and evaluation
- Planning process and programming techniques
- Examination of policy measures that contribute to equity and social justice without substantial sacrifice of economic growth
- Employment effect of currency overvaluation
- Institutional structure and reforms
- Industrialization trends in the developing ECAFE countries

Vol. XXIII, No. 3, December 1972

- Report of the Expert Group on Progress Evaluation during the Second United Nations Development Decade (second session)
- The distribution of incomes in the ECAFE region: causal factors and remedial policies
- Industrial policy issues and the employment problem
- Agricultural employment and productivity
- On the measurement of mass poverty in India
- Report of the Preparatory Group of Experts in Connexion with the Ninth Group of Experts on Programming Techniques

Vol. XXIII, No. 4, March 1973

- Economic Survey of Asia and the Far East 1972
    - Part One: First Biennial Review of Social and Economic Developments in ECAFE Developing Countries during the Second United Nations Development Decade
    - Part Two: Current Economic Developments and Policies in the Countries of the ECAFE Region

Vol. XXIV, No. 1, June 1973

- Declaration of Population Strategy for Development
- The interrelationship between economic development and population growth during the Second and Third Development Decades
- Manpower growth and labour absorption in developing Asia
- Population and food supply in Asia
- Implications of population trends on urban development and housing
- The role of incentives in family planning
- Future family planning impact: method and data requirements
- Selected aspects of the first regional survey of demographic research and teaching (training) institutions in demography in the ECAFE region

Vol. XXIV, No. 2/3, September/December 1973

(combined issue)

- On the development of basic income indicators to supplement GNP measures
- Anatomy of labour absorption in Philippine manufacturing, 1956-1966
- The unemployment problem in Fiji
- The structure of industrial protection in Thailand during the 1960s
- The optimum stability of exchange rates

---

* For *Economic Bulletin* issues prior to vol. XXI, 1970, please refer to the Development Planning Division, ESCAP.

Vol. XXIV, No. 4, March 1974

- Economic Survey of Asia and the Far East 1973
  - Part One: Education and Employment
  - Part Two: Current Economic Developments

Vol. XXV, No. 1, June 1974

- Review of the economic and social situation in the ECAFE region and Consideration of Action in Priority Areas
- Major economic and social problems: a recapitulation of events and projections during the 1970s and 1980s in the ECAFE region
- Food shortage and nutrition in the ECAFE region
- Technology transfer as a development strategy in the ECAFE region
- Proposals for trade policies in the ECAFE region
- The role of multinational corporations in the ECAFE region
- Distribution of income and wealth in the strategy for development in the ECAFE region
- The utilization of labour in the strategy for development in the ECAFE region

Vol XXV, No. 2/3, September/December 1974

(combined issue)

- Development planning techniques in India
- Development planning techniques in Iran
- Development planning techniques in Japan
- Development planning techniques in Malaysia
- Development planning techniques in Nepal
- Development planning techniques in the Philippines
- Development planning techniques in Sri Lanka

Vol. XXV, No. 4, March 1975

- Economic and Social Survey of Asia and the Pacific 1974
  - Mid-term Review and Appraisal of the International Development Strategy for the Second United Nations Development Decade in the ESCAP Region, 1974

Vol. XXVI, No. 1, June 1975

- Report of the Seminar on the Mobilization of Private Savings
- Structure of private saving in participating developing countries
- Problems encountered in the mobilization of personal savings in urban and rural areas: a case study of India
- Problems encountered in the mobilization of personal savings in urban and rural areas: a case study of Pakistan
- Problems encountered in the mobilization of perso savings in urban and rural areas: a case study of Philippines
- Review of existing savings institutions and methods us in mobilization of small savings in Malaysia
- Review of existing savings institutions and methods us in mobilization of small savings in Thailand
- Credit needs for small farming, small industries a handicraft and mobilization of rural savings — achie ments and shortcomings in Bangladesh
- Credit needs for small farming, small industries a handicraft and mobilization of rural savings — achie ments and shortcomings in Indonesia
- Savings institutions and recommendations for effici savings mobilization
- The philosophy of the savings bank as an institution a its adaptability to developing countries
- Incentives to save and an appraisal of their effectivene in the Republic of Korea
- Incentives to save and an appraisal of their effectivene in Sri Lanka
- Incentives, motivation and roles of fiscal, monetary a other policies for generating and mobilizing priv savings
- Savings in a developing economy — certain suggesti for reform and national co-ordination
- Japanese experience in savings promotion techniques
- Notes on development and saving in Laos, with empha on the mobilization of private saving
- The New Zealand savings scene
- Savings in Australia

Vol. XXVI, No. 2/3, September/December 1975

(combined issue)

- Problems of marketing of small farmers in the ESC region
- The small farmer and the market: with special refere to rice and wheat in India
- The experience of marketing with regard to small farm in Bangladesh, with particular reference to the Comi Rural Development Programme
- Problems of small farmers under contract marketing w special reference to a case in Chiengmai provin Thailand
- Marketing of rubber by smallholders in Peninsu Malaysia

Vol. XXVI, No. 4, March 1976

- Economic and Social Survey of Asia and the Pacific 1
  - Part One: Recent Developments and Emergi Policy Issues in the ESCAP Region 1974/75
  - Part Two: Rural Development, the Small Farmer a Institutional Reform

كيفية الحصول على منشورات الامم المتحدة

يمكن الحصول على منشورات الامم المتحدة من المكتبات ودور التوزيع في جميع انحاء العالم . استعلم عنها من المكتبة التي تتعامل معها أو اكتب الى : الامم المتحدة ،قسم البيع في نيويورك او في جنيف .

如何购取联合国出版物

联合国出版物在全世界各地的书店和经售处均有发售。请向书店询问或写信到纽约或日内瓦的联合国销售组。

HOW TO OBTAIN UNITED NATIONS PUBLICATIONS

United Nations publications may be obtained from bookstores and distributors throughout the world. Consult your bookstore or write to: United Nations, Sales Section, New York or Geneva.

COMMENT SE PROCURER LES PUBLICATIONS DES NATIONS UNIES

Les publications des Nations Unies sont en vente dans les librairies et les agences dépositaires du monde entier. Informez-vous auprès de votre libraire ou adressez-vous à : Nations Unies, Section des ventes, New York ou Genève.

КАК ПОЛУЧИТЬ ИЗДАНИЯ ОРГАНИЗАЦИИ ОБЪЕДИНЕННЫХ НАЦИЙ

Издания Организации Объединенных Наций можно купить в книжных магазинах и агентствах во всех районах мира. Наводите справки об изданиях в вашем книжном магазине или пишите по адресу: Организация Объединенных Наций, Секция по продаже изданий, Нью-Йорк или Женева.

COMO CONSEGUIR PUBLICACIONES DE LAS NACIONES UNIDAS

Las publicaciones de las Naciones Unidas están en venta en librerías y casas distribuidoras en todas partes del mundo. Consulte a su librero o diríjase a: Naciones Unidas, Sección de Ventas, Nueva York o Ginebra.

Printed in Hong Kong
September 1976—2,000

Reprinted in United Nations, New York
36482—November 1976—2,700

Price: $U.S. 10.00
(or equivalent in other currencies)

United Nations Publication
Sales No.: E.76.II.F.1
ST/ESCAP/2